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ABSTRACT

This report contains a consultant's observations on the state of documentation centers and academic libraries in Iraq at the time of his visit in late 1976, as well as his recommendations for their development. Discussions of the libraries under the jurisdictions of the universities of Mosul and Baghdad include their backgrounds, organizational structures, and services. Also examined are the seven documentation centers under the aegis of Iraq's Foundation of Scientific Research, the Ministry of Planning Library, and the Specialized Institute for Engineering Studies.

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I R A Q

DEVELOPMENT OF DOCUMENTATION AND ACADEMIC LIBRARY SERVICES

Simon Francis

Report prepared for the Government of Iraq by the United Nations Educational, Scientific and Cultural Organization (Unesco)

U N E S C O

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INTRODUCTION

At the request of the Iraqi authorities the consultant was sent under Unesco's Programme of Participation in the activities of Member States to advise on the development of the Central Library of the University of Mosul and to advise the Fourdation of Scientific Research, Baghdad, on matters related to documentation services.

The consultant visited Iraq from 3 November to 30 December 1976. This report contains his observations on the present state of documentation and academic library services in Iraq and his recommendations for their development.

The Republic of Iraq occupies an area of 438,446 sq.km. in the north of the Arab region. It is bordered on the north and east by Turkey and Iran, to the west by Syria and Jordan and to the south by Saudi Arabia and Kuwait. 59.1% of the country is officially described as mountain or desert. Iraq possesses nearly 6% of the world's proven reserves of oil and income from this forms the largest proportion of the national budget. Agricultural products, chiefly dates, form the second largest source of foreign currency. Since the late 1950's there has been considerable expansion in the industrial sector.

The total population is estimated at approximately 11 million, near 3 million of which are concentrated in the capital, Baghdad. The two other largest towns are Mosul in the north with 850,000 and Basrah in the south with 800,000 inhabitants respectively. For administrative purposes the country is divided into 16 provinces under the control of the Ministry of the Interior. The supreme authority is the Council of Command of the Revolution whose Chairman is the President of the Republic and Prime Minister. Executive power rests with the Council of Ministers. Each minister is responsible for the execution of broad policies while day-to-day control rests with the Director-General of each ministry.

The Ministry of Culture and Information is responsible for the arts and the mass media as well for the National Library in Baghdad and such public libraries as exist. The level of literacy is estimated at 38% and a report on adult education referred to the Ministry's Directorate of People's Culture as operating travelling libraries, and commented that an "effective network of library services..... should be established. The Ministry of Education is the appropriate place for this".(1) Iraq hopes to be able to introduce universal compulsory education by the 1980's.

Higher education in Iraq began in 1958 with the founding of the University of Baghdad. Soon afterwards colleges in Mosul became affiliated to the University of Baghdad and in 1964 four colleges in Basrah also became affiliated to the University, In 1967 a major reorganization of higher education took place as a result of which the colleges in Mosul and Basrah were recognized as independent universities. In 1963 two private universities were established in Baghdad. In 1966 they merged and in 1968 they were recognized by the Government as Al-Munstansiriya University and a further university was established in Sulaimaniya. The number of universities has recently increased to seven with the founding of the University of Technology in Baghdad and the very recently opened Military University.

The Universities are the responsibility of the Ministry of Higher Education and Scientific Research which was founded in 1970. The Ministry is also responsible for the Foundation of Scientific Research and for the Atomic Energy Centre. Policy guidance for the Ministry is provided by the Council of Higher Education and Scientific Research which was also founded in 1970 and whose Chairman is the President of the Republic.

(1) IRAQ. Development of adult education. Project findings and recommendations. Paris, Unesco, 1975. (FMR/ED/LL/75/121/REV.)

Each university has several colleges and full interchangeability between courses is not always possible. The lack of possibilities for technician training and of possibilities for upgrading technician qualifications to full university level has been commented on by at least two visitors.(1)(2) The former of these also suggested that "the traditional written examination, with questions drawn from lectures, should be replaced by a system involving more creativity from the student..... this requires good libraries". It was estimated in 1968 that 20% of the students of the College of Medicine of the University of Baghdad did not use the library. The 1972 report referred to above also spoke of the need to avoid unnecessary duplication between the Central Library and the College Libraries of the University of Baghdad and in 1975 a report(3) on science and technology suggested that 80% of research and development expenditure should be for capital items and mentions the need for libraries to be modernized during the five-year period 1976-1980 as an example. In 1976 a report called for "better co-ordination and co-operation between the Central Library of the University of Baghdad, the Post-Graduate Library of the College of Education and the Library of the Educational Research Centre.(4)

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(1) LE THANH KHOI Iraq: Planning for Higher Education. Paris, Unesco, 1972. (2708/RMO.RD/EDS).

(2) ADAMSON, C. Republic of Iraq: Diversification and strengthening of higher technical education. Paris, Unesco, 1974. (3021/RMO.RD/EHT).

(3) PETRIC, E. Iraq. Science and technology policy, structures and mechanisms. Technical report No. 2. Paris, Unesco, 1975 (FMR/SC/STP/75/261).

(4) IRAQ. Educational Research Centre, University of Baghdad. Project Findings and Recommendations. Paris, Unesco, 1976 (FMR/ED/TEP/76/206(UNDP)).

CHAPTER I

ACADEMIC LIBRARIES

1. UNIVERSITY OF MOSUL

1 Background

The University of Mosul was founded in April 1967. Before that time the five existing colleges that became the nucleus of the University were affiliated with the University of Baghdad. The oldest of these colleges, that of Medicine, had been founded in 1959 and was followed by Colleges of Engineering, 1963; Science, 1964; Pharmacy, 1964 and Arts in 1966. The College of Agriculture and Forestry was founded in 1964 and the College of Pharmacy was absorbed into the College of Medicine in 1969. In 1974 a decree of the Revolutionary Command Council of Iraq transferred the College of Accountancy and Business Administration to the University of Mosul. The development of the University is rapid and changes may well occur. During 1976 a College of Education enrolled its first students.

Governance

In common with all other universities in Iraq, the University of Mosul is responsible to the Ministry of Higher Education and Scientific Research from which it receives finance and guidance. The senior officer of the University is the President who is also Chairman of the University Council which is the senior policy-making body. Each College is headed by a Dean who is Chairman of the College Board. The President is aided by three Assistants to the President - those for Scientific Affairs, Cultural Affairs and Graduate Studies and each Dean has two or three Assistants, invariably for Scientific Affairs and sometimes for Administration and Student Affairs as well. A student representative sits on the University Council and on College Boards.

Enrolment

During its first year of independence the University contained 3,408 students and since then maintained a modest growth until the last two years. The University is said to have wished to reach its present enrolment of nearly 11,000 over a greater number of years but to have been obliged to accept the larger numbers immediately.

Analysis of enrolments according to college show that the bulk of the increases of 1976-1977 over 1975-1976 are concentrated in three colleges, engineering, science and economics. It must be assumed that the increase of 91% in the student numbers in the latter college largely reflect the increasing trend towards full-time rather than part-time students.

Since the College of Medicine and Agriculture are completely apart from the main campus and the part-time students of the College of Economics are for the moment also taught at premises in the city the numbers of students on the main campus is roughly 6,000 comprising the 5,035 students of the four colleges there and an estimated 1,000 of the College of Economics. Thus only 56% of the student body can be expected to be constant users of facilities, such as the library, situated on the main campus.

Academic Programme

The basic courses in all colleges except Medicine lead, after four years, to a BSc. or BA degree. In Medicine the six-year course leads to MBChB. Graduate studies, usually for masters degrees, are offered in most colleges and the number of subjects available is expected to increase. Most of the students in the College of Administration and Economics are part-time but the trend is toward an increasing proportion of full-time students.

The academic year consists of two semesters of 15 weeks each and begins at the end of August. The second semester begins at the beginning of February and examinations are held late in May and early in June.

Location

At present the University occupies a number of sites in and around the city of Mosul. The College of Engineering, Science, Arts and Education occupy, together with the Social and Cultural Centre and student dormitories, an extensive campus on the east side of the river Tigris adjoining the remains of the ancient city of Nineveh. The College of Medicine is attached to the main city hospital on the west bank of the river and the College of Administration and Economics occupies premises both on the main campus and in the Mansour area of the city. Furthest away is the College of Agriculture and Forestry which has a large site at Hammam Al-Alil, 28 km. south of Mosul. In addition, the Office of the University President and those of senior members of the University administration, together with the printing and publishing organization Dar El-Kuttub, are located at another site within the city.

1.2 Libraries under the jurisdiction of the University of Mosul

There are at least 11 libraries within the University of Mosul. Apart from the Central Library, six of the seven colleges have their own library and the seventh, the College of Science, has libraries in four of its departments. The relationships between these libraries are complex but they can in no sense be regarded as a system. Each of the libraries is described in the following sections.

A. CENTRAL LIBRARY

The largest of the libraries of the University is the Central Library which is the responsibility of the Director-General of University Libraries. In general the library appears well placed in formal position within the University to assume a major role of leadership in library matters.

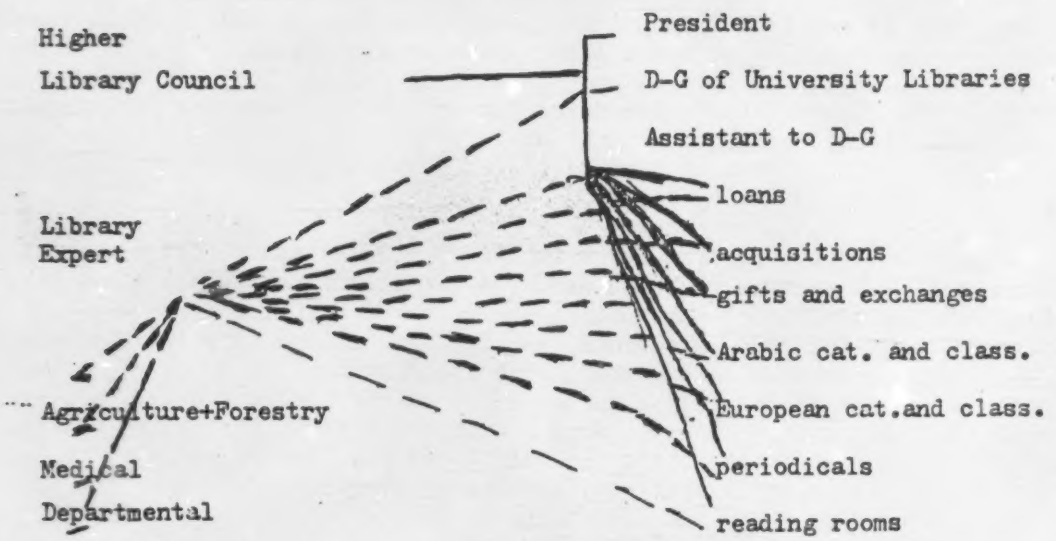
Management and policy making

The supreme policy body for library matters in the University is the Higher Library Council. This is composed of the Deans from each college with the President of the University as Chairman and with the Director-General of Libraries also a member. The Council meets infrequently to discuss matters of policy and to receive an annual report from the Director-General.

The current Director-General of Libraries is also Assistant to the President for Cultural Affairs and much of his time is thus taken up with matters away from the Library. The Director-General does not have the status of a Dean within the University and is not a full member of the University Council. The Assistant to the Director-General is responsible for the day-to-day operation of the Central Library and has irregular and informal meetings with the heads of the various departments. No formal management system exists and almost all decisions are made by the Assistant to the Director-General.

Responsibility for the control of the College and Departmental Libraries does not appear to be clearly defined.

Management structure



Staff

The total number of non-manual library staff on the establishment of the Directorate-General of Libraries is stated to be 33 with a further seven or eight in the central management section. The situation of the staff in the College and Departmental libraries is complex and it is not easy to arrive at precise figures for some. Staff in these libraries are the responsibility of the respective college. Total annual staff costs are estimated at ID.375,000-380,000 (£750,000-760,000). A generous estimate of expenditure on library materials - books, periodicals, sundries etc. - would be ID.100,000 (£200,000) per year. This suggests that staffing costs are at least 80% of the total recurrent expenditure. This figure may be compared with an approximate average of 65% for academic libraries in the United Kingdom.

A number of the library staff have received training on the Diploma in Library Science course at Munstansiriya University in Baghdad and one at least attended the Graduate School of Library Science at the University of Baghdad. The former Chief Librarian of the University received training at a Library School in West Germany but soon after his return transferred, for personal reasons, to the Medical Library. The Chief Librarian of the Medical Library undertook a three-month study visit to Medical Libraries in Great Britain and subsequently another, shorter visit to Medical Libraries in Europe. None of the other College or Departmental Libraries has any professionally trained staff. The foreign-trained librarian on the Central Library is an American woman resident in Iraq who has received a Master's Degree in Library Science from Utah State University and who is employed as a "library-expert". Neither the Director-General of University Libraries, the Assistant to the Director-General nor the heads of the Acquisitions, Periodicals or Gifts and Exchanges Departments has received any training in librarianship.

Finance

The Central Library is frequently stated to have an unlimited budget. However, in practice expenditure has been relatively modest and no major demands have been made upon the resources of the University. Items of expenditure up to ID.2,000 (£4,000) may be authorized by the Director-General of the University Library. Items over that amount must be approved by the President of the University and are not invariably authorized. No budgets for future expenditure are prepared and no annual sum is received from which expenditures must be made. It is possible to estimate that expenditure on books alone probably amounts to ID.25,000-30,000 (£50,000-60,000) per year taking the average cost of foreign language books at ID.5 (£10) and the cost of Arabic purchases rather lower. Costs for periodicals and miscellaneous items cannot be estimated.

Buildings

The present buildings for the Central Library consist of two large reading rooms containing between them over 300 seats, a two-storey periodical store and office area leading off one of the reading rooms, the bookstacks divided into two areas, a modest area for loan operations, acquisitions and cataloguing departments and two small office areas. This complex of buildings is situated on one of the main pedestrian routes of the campus in the midst of the teaching buildings. At the rear of the building are located further separate offices for gifts and exchanges, the Assistant to the Director-General and the finance and personnel officers together with a small store for stationery supplies. The corridor of this building is used to store the collection of United Nations material.

The Libraries of the Colleges of Medicine and Agriculture are both in similar, but more modest accommodation and the other libraries are housed in former class-rooms in the main teaching building for the College or Department.

The total number of seats in the Central Library is stated to be 390, which, when combined with a total of 240 seats in the College and Departmental Libraries on the main campus, provides an overall seat to student ratio of roughly 1:10. The Agriculture Library provides 270 seats giving a ratio of 1:5.

A new Central Library building is under construction and is described in detail later in the report.

A new Library for the College of Agriculture and Forestry is also under construction.

Approval for a new library building for the College of Medicine is being sought.

Acquisitions Department

The Department of Acquisitions is responsible for ordering, receiving and registering all purchases by the Library and for registering material received from the Gifts and Exchanges Department. There is a staff of four, none of whom has qualifications and during the past 12 months there have been several changes among the senior staff. The Department is not responsible for the budgeting or financial aspects of acquisitions.

Virtually all selection of materials is made by the academic staff of the Colleges who approach the task with varying degrees of enthusiasm. Requests for more than two copies of a book must be approved by the Assistant to the Dean for Scientific Affairs in the College concerned and in some cases titles are considered by book committees.

Requests within the Colleges of Agriculture, Medicine and Economics are dealt with independently within these Colleges using the same basic system. Material requested by the Colleges of Engineering, Science, Arts and Education on the main campus are handled by the Central Library Acquisitions Department.

Arabic books are ordered by Dar el Kuttub from a bookseller in Baghdad or directly from the publisher. Foreign language books are ordered in the main from a library supplier in the United Kingdom.

Gifts and Exchanges Department

The Department of Gifts and Exchanges was formed during 1975 and maintains contacts with 500 institutions within Iraq and abroad. In addition to the publications of the University itself up to 50 copies of local publications from the city are bought for exchange purposes. The Department is responsible for much of the distribution of the University's cultural magazine "al-Jamia" which now appears monthly. The Department also receives from the Iraq National Library in Baghdad at least one copy of material received there for legal deposit and from other universities in Iraq copies of their own publications.

The permanent staff of the Department consists of one person with occasional clerical help.

The College of Agriculture and Forestry Library maintains its own exchange and gift relations and is responsible for the distribution of the College's "Mesopotamia Journal of Agriculture".

Bookstock

The Government of Iraq has decreed that University instruction should be in Arabic to the greatest possible extent. It is however clear that at present publishing in the Arabic language is insufficient in volume to support University level studies in almost all subjects. The Unesco meeting of experts on the National Planning of Documentation and Library Services held in Cairo in 1973 estimated the total world Arabic language output at all levels at 5,000 titles per year. It is not surprising therefore to find that the stock of the Central Library contains substantial numbers of foreign language titles, almost all of which are in English.

From two analyses of the Arabic and foreign language catalogues it has been possible to estimate the number of titles in the collection. The examination showed that 69% of the Arabic books were represented by single copies and that the total number of Arabic titles is about 82.9% of the total number of copies. For foreign language books 57% of the books were represented by single titles and the number of titles is 75% of the total number of copies. Thus the total number of titles in the collection may be estimated as:

24,808	Arabic
33,118	Foreign
67,926	Total

The potential users of this collection are the students at the main campus only since the distances involved to the other campuses precluded the possibility of any but occasional visits from students based elsewhere. The number of potential users has been estimated at 6,000 giving a volume to student ratio of 12:1 and a title to student ratio of 11:1.

It has not been possible to make comparably detailed studies of the stocks of the Agriculture and Medical libraries or of the Economics library. From the crude figures collected relating to the first two libraries it can be estimated that the volumes to student ratio is 10:1 in Agriculture and 9:1 in Medicine. A working figure of 11 volumes per student and 10 titles per student may therefore be regarded as a reasonable approximation.

As may be expected from a stock almost exclusively selected by members of the teaching staff it consists very largely of standard students texts. There is little general background material and serious gaps exist in basic reference and bibliographic tools. University regulations prohibit the discard of any material from the library and despite the fact that the library has only been in existence for nine years the need to weed the stock is becoming felt.

Periodicals Department

During 1975 it was decided to centralize the acquisition of all periodicals for the libraries in the University through the use of a single agent. At present a total of 2,136 titles are received of which 900 are foreign-language titles received by the Central Library. The selection of titles for the Medical and Agriculture libraries is made without reference to the holdings of the Central Library. Periodicals in Arabic are usually ordered directly from the publishers or, in the case of Iraqi titles, received as legal deposit copies. Titles are received by an agent in the United Kingdom and every two weeks are dispatched in bulk to Mosul.

The periodicals are classified by the Dewey Decimal Classification and Cutter numbers are used. The assigning of Classification and Cutter numbers and the maintenance of a card index to the periodical collection occupies a considerable amount of the time of two assistants. Two further members of the Department, one of whom is not full-time, are concerned with correspondence and administrative questions and with general supervision. The fifth member of the Department is responsible for shelving and other duties in the periodicals reading room.

A photocopy machine is available within the Department but its reliability and quality is poor. A microfilm reader/printer is also available.

Loans of individual issues of periodicals are made for one week to faculty members and for three days to graduate students.

Periodical stocks

All periodical titles are selected by members of the teaching staff. No systematic collection development has been undertaken and it is clear that there are important gaps both in titles received and in their holdings. The Higher Library Council has passed a resolution that as a general rule back issues of periodicals prior to 1967 may not be purchased without specific authorization. This authorization appears to be received without great difficulty and orders have been placed with dealers for both full-size and microform sets. No attempt has been made to relate the length of holding to known patterns of use or citation. Abstracting and indexing tools are poorly represented in the collection and their use appears to be minimal. Some titles are shelved in the reading rooms and some with the periodicals collection.

All chemistry, mathematics and statistics periodicals are housed temporarily for reasons of space in the appropriate departmental libraries nearby on the main campus.

The Dar El Kuttub Organization has undertaken some binding of periodicals but the quality is not good.

No union catalogue of periodical holdings within the University exists but a draft edition of a union list based largely upon subscription information has been prepared and circulated. The Medical Library also has a list of titles received.

Classification and Cataloguing Department

The Classification and Cataloguing Department is divided into two largely separate divisions, one for Arabic materials and the other for materials in European languages.

(i) Arabic material

The lack of published bibliographical and cataloguing tools for Arabic books means that all classification and cataloguing work must be done in the library. The Arabic language edition of Dewey prepared in Cairo is used but no list of subject headings is available in Mosul.

Two complete catalogues are maintained - one for staff use and one for public use in the social science reading room. The two professional staff of the Division have received training at Munstansiriya University.

The total staff of the Department is approximately 12 persons who, in addition to the duties outlined above, also maintains an author sequence of catalogue cards of foreign language acquisitions of the Central Library of the University of Baghdad. These cards are of good quality and are prepared according to standard practice. All the catalogues in the Central Library are almost totally without guide cards.

(ii) European language material

The Dewey Decimal Classification is used but the 16th, 17th and 18th editions have been employed. There is thus little consistency in the placing of books. Library of Congress subject headings are used but the change from the 7th to 8th editions has been made without any change of previous entries. Some classification and subject analysis is taken from the entries in the British National Bibliography and the American Book Publishing Record.

Three people are employed in the Division on Classification and two of them have received training at the Department of Library Science of Munstansiriya University, Baghdad.

After classification, material is passed to the cataloguing section where entries are prepared in approximate conformity with the Anglo-American Cataloguing Rules 1967. Wherever possible Cataloguing in Publication (CIP) data is used and BNB and ABPR are also consulted. Cutter Numbers are used. After a single entry has been prepared other cards are typed and checked.

A catalogue of European language books was formerly maintained in the public reading room. However lack of supervision and unfamiliarity with the use of the catalogue by students led to the removal of many cards and it has subsequently been abandoned. The only catalogue now in use is one for both public and staff use which is kept in the Acquisitions Department. It is a dictionary catalogue with two sequences - authors/titles and subject. This catalogue is being retyped slowly and the resulting duplicate will be placed again in the reading room in the hope that it can now be maintained intact.

Special collections

Three special collections of material exist in the Central Library:

(1) a collection of official publications of the Government of Iraq has been built up largely from copies received from the National Library and directly from ministries and official bodies. This collection is shelved in the science reading room and is catalogued in the main catalogues according to language. No attempts appear to be made to develop the collection other than by the random receipt of material and no member of staff has been given special responsibility for maintaining it;

(2) a special collection of material in several languages dealing with the question of Palestine exists and is shelved in the science reading room. No particular efforts to develop or maintain the collection appear to be made;

(3) late in 1975 or early in 1976 the Central Library became a Depository Library for United Nations publications. Originally, substantial items such as the Treaty Series were catalogued, classified and shelved as normal items of stock. During the summer of 1976 an attempt was made to collect all the material together and it is now mainly stored on shelves outside the administrative offices of the Library. The material is in no order whatsoever and packages of new materials are left unopened on the shelves. No one has been assigned for the collection.

Loans

All loan copies of books in the libraries of the University are kept on closed access and must be fetched by the library staff for use by readers. Two copies of a loan slip are prepared by the reader requesting a book. One copy is placed on the shelf in the stacks at the position from which the volume was removed and the other is kept at the loan desk. Members of the teaching staff and students on post-graduate courses are allowed access to the stacks but must complete loan slips in order to borrow material. No date label or date stamp is used to indicate the date by which the book must be returned and no effective system of recalling overdue books is in operation.

Reader services

Opportunities for reader services exist in the two reading rooms of the Central Library. The social sciences reading room has slightly over half its stock in Arabic and covers the whole range of the Social Sciences and Humanities. The Science and Technology reading room has a majority of its stock in English. The stock in both rooms consists of standard reference material - encyclopedias, dictionaries, yearbooks and treatises. Some abstracting and indexing services are present but others are housed in the periodicals room. The reference material available is a haphazard collection that shows little evidence of collection development activities. None of the volumes has distinguishing marks to identify it as a reference item.

The library is open from 8 a.m. to 8 p.m. each weekday.

Both reading rooms have desks for members of the library staff but there is little sign that these staff are called upon for reference work by the users of the library. No guide to the library and its services exists. No instruction in the use of the library is given to students and members of the teaching staff.

B. COLLEGE AND DEPARTMENTAL LIBRARIES

The Assistant for Scientific Affairs to the Dean of each college is responsible for oversight of the College and Department Library. His responsibilities include approval of requests for new library materials for either the Central Library or the College or Departmental Library. In all of the College or Departmental libraries some of the staff are the responsibility of the Central Library while others are on the establishment of the College.

College Library - Agriculture and Forestry

The Library of the College of Agriculture is situated at Hammam Al-Alil, 28 km. south of Mosul. The library contains 15,000 volumes and subscribes to 400 periodical titles. In addition some 5,200 university theses in microform have been received. The library has benefited from the existence of several FAO research projects in Northern Iraq and contains a substantial collection of research reports and bulletins from FAO and other sources. The bookstock is selected, purchased and catalogued independently from the Central Library although it uses the same agent. Periodicals are acquired through the Central Library although in general they are delivered directly to the Agricultural Library. The Dewey Decimal Classification is used although there is some inconsistency in the editions employed. The bookstock is held on closed access except for a modest reference collection. The periodical collection is an open access and there are a number of surprising omissions including the Bibliography of Agriculture. Title, author and subject catalogues on cards are maintained and a printed catalogue of the stock up to the end of December 1973 containing entries for 3,632 titles was prepared under FAO sponsorship.

The three reading rooms of the library contain 270 seats and are heavily used. The library is open from 8.30 a.m. to 10.00 p.m. and at times there is pressure for longer hours. This seating ratio is roughly 1:5.5 students and compares favourably with libraries in Europe and the United States. Some 85 loans per day are made to staff and students. There is a staff of six, of whom one has had professional training. The Senior Librarian is at present obtaining a higher qualification in library and information science in Yugoslavia.

A new library is in the final stages of construction adjacent to the existing building. It consists of three irregularly shaped floors above ground and a basement book store. The design features a spiral staircase as the only means of vertical movement for books and readers between the three main floors. Few of the rooms are rectangular and the use of space is not economical. The ground floor will contain the entrance, lending desk, closed access book store, offices for the librarian and typists, catalogues and a reference room. A staff workroom was not originally envisaged and has been created from a reserve book room. The basement contains the other half of the closed access book store and a maximum capacity for both stores may be estimated at 20,000 volumes each. The first floor contains a periodicals room in which enclosed space for the periodicals assistant can be created and a reading room for approximately 65 users. There is also a small smoking/relaxation room and a small store area. The top floor is largely open and could seat some 165 users. The total seating thus provided is 210 and is substantially less than in the existing library. The new library is clearly only to be a very modest improvement over the existing premises and in terms of seating will represent a substantial lowering of standards. If the College is to expand or accept new responsibilities and be independent from the University of Mosul a new library building will be urgently necessary.

College Library - Arts

The Library of the College of Arts was founded in 1973 and is situated very near to the Central Library. It contains 40 seats at long tables. The stock consists of approximately 4,200 volumes in Arabic which are not recorded in the Central Library's catalogue. This stock is housed on open access. A collection of roughly 1,000 volumes in English is housed on closed access. A limited number of the titles are duplicated in multiple copies. A modest number of periodicals is held including a few in English. All titles are duplicates of those held in the Central Library. Loans are made to staff and students. There is a staff of five of whom one is on the establishment of the Central Library while the others are the responsibility of the College.

College Library - Education

The Library of the College of Education was founded, with the College, in 1975 and is situated very near the Central Library. It contains 60 seats at long tables. There is a small stock, largely in Arabic and loans are made to staff and students. A limited number of Arabic periodicals are received all of which are duplicated in the holdings of the Central Library. There is a staff of two both of whom are the responsibility of the College and not the Central Library.

College Library - Engineering

The Departmental Library of the College of Engineering was founded in 1974 and is situated within 100 metres of the Central Library. It contains approximately 1,500 volumes classified by the Dewey Decimal Classification, a proportion of which have been purchased by the Central Library. Other titles, mainly multiple copies of standard texts, have been purchased from departmental funds and are not recorded in the catalogues of the Central Library. There is a well typed card catalogue of the stock. Students and faculty can borrow from the collection, which is on closed access, using the same loan forms as the Central Library. The library is in process of receiving from the Central Library an entire set of British Standard specifications. The only periodicals in the library are popular Arabic titles and a few newsheets received gratis. There are 64 seats in the library arranged in groups of four at long tables. The staff of two are on the establishment of the College of Engineering and do not have professional qualifications.

College Library - Medicine

The Library of the College of Medicine was established soon after the founding of the College in 1959. It is situated in several rooms on the Medical Campus attached to the main hospital in the city. It contains approximately 12,000 volumes, some of which are standard texts in multiple copies, classified by the National Library of Medicine (U.S.A.) Classification. To deal with a substantial backlog of cataloguing in the early years of the library, Library of Congress and British National Bibliography cards were ordered but all current accessions are catalogued in the Library, using the NLM Current Catalogue as a guide. Books are selected by members of the faculty and are ordered independently from the same agent as is used by the Central Library. The holdings of the Medical Library are not recorded in the catalogues of the Central Library. The stock is maintained on closed access and loans are made to students and faculty using the same loan record as the Central Library. Some 350 periodical titles are received via the Central Library and are arranged alphabetically by title in an open access reading room. Most back issues of periodicals are stored loose on the shelves or in boxes in view of the poor quality of binding available locally. There is a full-time staff establishment of four of whom the typist and general assistant are supplied by the College of Medicine.

Plans for a new medical library building to house at least 100,000 volumes have been submitted to the Ministry of Higher Education in Baghdad whose decision is awaited.

Departmental Library - Chemistry

The Library of the Chemistry Department of the College of Science is situated within 100 metres of the Central Library. It is a spacious room containing 36 seats and desks for the two staff. Some 25 shelves of European-language stock are arranged along the walls of the room. Some of the stock has been purchased and catalogued by the Central Library but other portions have been acquired from departmental funds. The latter titles are mainly standard texts held in multiple copies. Because of the shortage of space in the Central Library the entire periodical holdings both of current issues and back sets within chemistry is housed in the Departmental Library temporarily. The library has its own photocopy machine. The library is under the occasional supervision of a member of the teaching staff of the Department and the one full-time staff member who does not have professional qualifications is on the establishment of the Department and not of the University Library.

Departmental Library - Geology

The Library of the Department of Geology of the College of Science has recently been established in a small room very near the Central Library. It is a closed access collection largely consisting of standard texts in multiple copies, most of which have been bought from departmental funds. No seats or periodicals are provided and the room is not open continuously. The teaching staff of the Department provide service in the library at times when it is open.

Departmental Library - Mathematics and Statistics

The Departmental Library of the College of Science Department of Mathematics and Statistics is situated within 150 metres of the Central Library. It contains 40 seats at long tables. The small stock consists almost entirely of multiple copies of standard textbooks which have been purchased by the Department and the Library is also used as a store for copies for distribution to students. The current and back issues of all mathematics and statistics journals subscribed to by the Central Library are housed in the Departmental Library because of shortage of space. All books and periodicals are kept on closed access. A limited number of loans to staff and students is made. The staff of two are on the establishment of the Department and not of the Central Library.

Other college and departmental libraries

In the time available it was not possible to visit the Library of the College of Economics which is situated in the Mansour area of the city, well away from the main University campus. It was also not possible to visit the Library of the Department of Biology situated on the main campus.

1.3 Future development of library services

It is at this stage impossible to predict the future development of the University of Mosul. Higher education is expanding very rapidly in Iraq and the University has to take its share of increased student numbers. It is said that the College of Agriculture may be granted independence and established as a university in its own right. This would have the effect of concentrating the University of Mosul in and around the city and would lessen some of the problems of administration and management.

The growth of masters level studies seems likely to continue and will pose severe strains on the library services and possibly on laboratories and other facilities.

The University must establish a definite policy for its libraries and take steps to see that the policy is implemented. At present responsibility for the Central Library rests clearly with the Director-General of Libraries but responsibility for the College and Departmental Libraries is not clear. The results of this are that duplication and scattering of stocks and services is beginning to occur and competition between the various libraries is not unknown. The Director-General of Libraries should be made responsible for all library matters in the University and be made a full member of the University Council with the same status as Deans of Faculty. Only in this way can the University develop a co-ordinated library service that efficiently meets the needs of staff and students.

The main outlines of future policy should be:

a strong Central Library

a co-ordinated system of college libraries for the Colleges away from the main campus.

A. CENTRAL LIBRARY

Management and policy-making

With its new building and with proper organization the Central Library of the University of Mosul has excellent possibilities of becoming a dynamic part of the University. It must at all times be responsive to the needs of members of the University and determined to provide the best possible service.

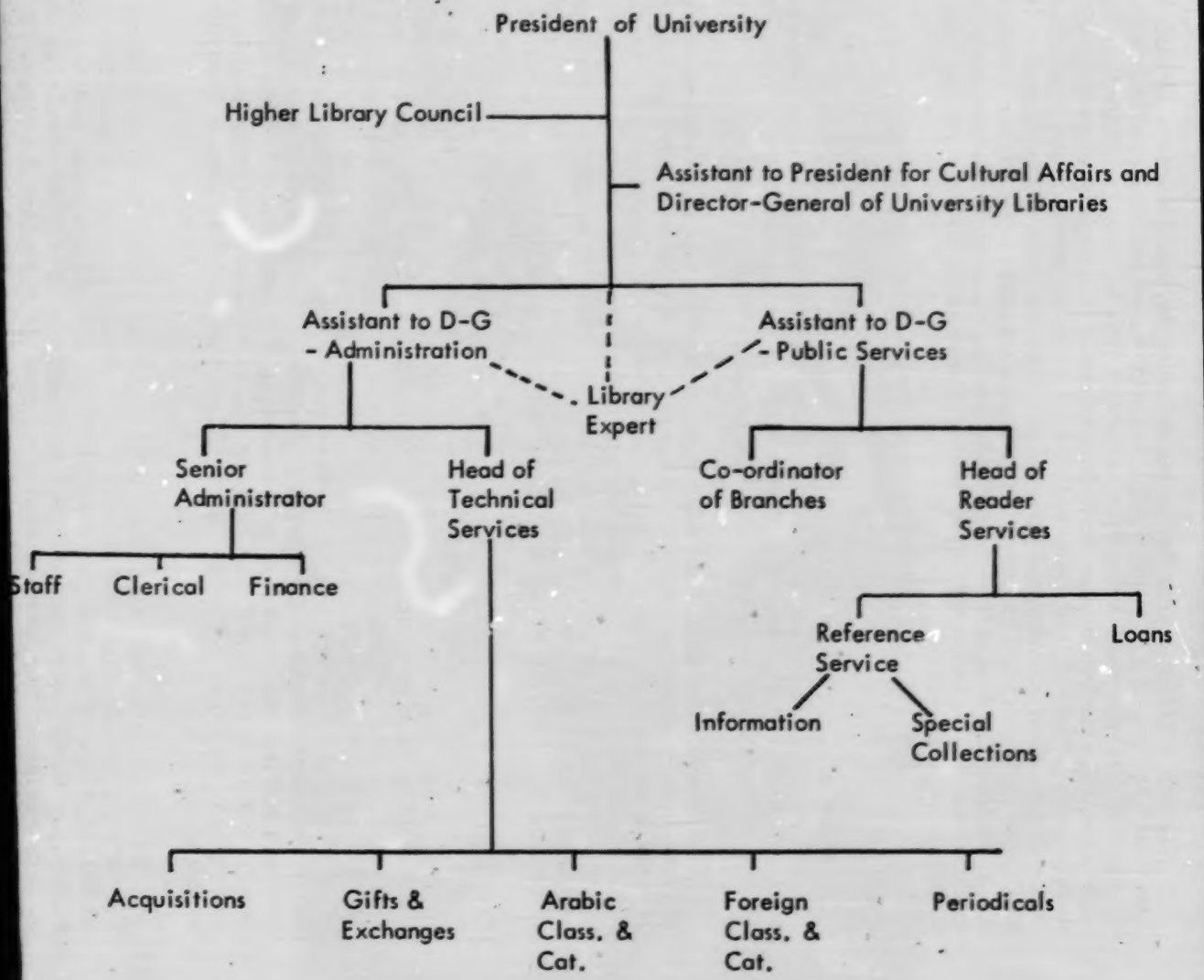
The Central Library is the largest library of the University and must act as a focal point for all library activities. There are now at least 11 libraries in the University and it will not be easy to persuade all of them to work together. Even without the serious shortage of qualified librarians in Iraq it would be wasteful to allow the large number of separate libraries. With the shortage of librarians it becomes not merely wasteful but contrary to the best interests of the University.

During the next five years the University of Mosul will make heavy demands on its libraries, and on the Central Library in particular. Unless the present management and policy structure is substantially changed the University will become increasingly dissatisfied with its libraries. However, the last few years of development have not been wasted. The outlines of an effective system have been set out and a start has been made in establishing a working organization.

The existing management structure is shown at the beginning of the description of the Central Library and clearly needs revision. The structure shown below represents one which can be achieved gradually as staff become available and which should enable much more efficient management.

The various functions of the Central Library have been grouped together in divisions each of which is headed by a chief. In this way responsibility for carrying out decisions of the senior management is clearly defined and a hierarchy of command is created.

UNIVERSITY OF MOSUL LIBRARIES PROPOSED MANAGEMENT STRUCTURE



The Director-General, the two Assistants to the Director-General and the Library Expert should form a senior management team. They should meet each week to discuss current problems and plan development. Every month they, and the Senior Administrator, the Head of Technical Services, the Co-ordinator of Branches and the Head of Reader Services should meet to consider the implementation of policies and plans. In turn each of the four divisional heads - Administration, Technical Services, Branches and Reader Services, should meet briefly each week with the heads of the sections forming the divisions and in this way monitor progress.

The top of this hierarchy is represented by the Director-General who must have the respect of his senior administrative and academic colleagues within the University and who must be a full member of the University Council. He must also be a full member of any bodies within the University concerned with future development. Only in this way will he be able to ensure that the libraries are fully informed of planning decisions and that the special problems of the libraries are taken into account in reaching these decisions. The Higher Library Council is in an excellent position to provide advice to the Director-General but its members should be those who also have responsibilities for the College and Departmental Libraries.

Staff

At present there is a very serious shortage of professionally qualified librarians in Iraq and in particular those with high-level qualifications and some years of experience. The University is not alone in Iraq in being unable to obtain qualified staff for its senior library positions.

It is not easy to set down precise standards for the numbers of staff that will be required by the Central Library. One set of standards prepared for libraries at a later stage of development suggests that a university the size of Mosul would require some 30 professional staff and a further 90 non-professional staff. This total number is three times the present number. The management structure outlined above would require this number of staff if it is to operate effectively. However it is realized that this number of staff is not available in Iraq at present. In this case every effort should be made to employ foreign librarians on fixed-term contracts of two or three years during which period sufficient Iraqi graduates can be trained. Most of the existing section heads in the Central Library would benefit considerably from training abroad and scholarships should be quickly made available to them. The senior positions suggested by the revised management structure will be the hardest to fill. It is not absolutely necessary, although highly desirable, that the Director-General of the University Libraries be professionally qualified. The two Assistants to the Director-General will occupy key positions and much will depend upon their professionalism and qualities of leadership and management. Each Assistant should have several years of training and experience in librarianship and have the ability to bring together the staff of the division into a team with a common purpose.

As the only person available with experience of developed library services the Library Expert has a heavy burden of responsibility. A practical solution to the shortage of senior staff might be to move the present Library Expert to be adviser to the most senior Iraqi professional librarian available who should be made Assistant for Administration or Head of Technical Services. A second Library Expert could be recruited from Britain or North America as adviser to the Assistant for Public Services. These two Library Experts would then be in a position to provide professional help until a group of Iraqi librarians have received appropriate training.

Finance

(i) Staff

The developments outlined elsewhere in this report will require a considerable increase in numbers of staff of all kinds. These staff costs should be calculated and allowances made for salary increases. From this a total staff budget for future years can be estimated. As library services develop they become more labour-intensive and the experience in Britain and North America has been that salaries gradually move from approximately 50% of the total budget during early development to 75% in later years when stock development has slowed down and more staff are needed to manage and exploit the collections. At present a very high proportion of the budget of the University libraries is taken up with staff costs.

(ii) Materials

Expenditure on library materials includes books, periodicals, microfilms, stationery, binding and miscellaneous items. In order to carry out the very rapid stock building required large sums of money will be needed for acquiring library materials of all kinds. As a minimum the current expenditure will need to be doubled for the next five years simply to meet purchases of current materials. Acquisition of back issues of periodicals and growth of bookstock into new areas of interest to the University will add more to the funds required. Sums for binding, stationery and microfilms will be smaller than those for books and periodicals. Allowance should be made for inflation in book and periodical prices. There is evidence that English-language materials may be increasing in price at some 30% each year. For the first two years of expansion it will not be possible to prepare a budget for library materials. However a careful record of expenditure on various categories of material should be made from which projections for future growth can be prepared.

Until the University accounting system is fully developed it will be necessary for the financial officers of the Library to maintain these records of expenditure. They should prepare a statement of accounts every six months from which the senior management of the library can prepare forward plans to obtain sufficient funds from the University.

Building

It will not be possible to make much improvement in the services of the Central Library until the move to the new building is completed. Unfortunately the building under construction contains a number of fundamental inadequacies that will limit the benefits that could have been achieved. The most basic of these shortcomings is that the maximum load that can be placed on any floor is only a little over half that which is required. A building of this type requires a floor strength of at least 120 pounds per square foot in the reading rooms and at least 150 pounds per square foot in the stock area. It is reported that the new building will have limits of 60 pounds per square foot in the reading room and 90 pounds per square foot in the stack area. This lack of strength will cause serious problems in the arrangement and layout of departments. The second major shortcoming is that the space between the columns in the stack areas is unsuitable for standard length shelving and shelving can be ordered only from firms constructing variable length units.

Within these limitations the following is proposed:

Layout

The physical limitations of the building do not allow flexibility in the layout of departments. Very little display of books or periodicals will be possible in the reading rooms and periodicals area and almost all material will have to be housed in the stack area. Within the stack area the weight limitation is also severe. Within each of the three closed stack areas shelving should be placed between the columns so that aisles of 28 inches are created. This will allow three clear runs of shelving between each grid of columns. A further run of shelving can be placed in line with the columns. Each of these four runs of shelving must have a 4 inch square steel plate 3/8 inch in thickness placed under each of the feet of the uprights. Without this in place the load on the floor will be excessive. Shelving should run from front to back of the building and should not be more than six shelves high each shelf being 9 inches deep. The basement stack area will probably house 200,000 volumes rather than the 250,000 mentioned on the plan. Each of the three upper stack levels will contain an absolute maximum of 50,000 volumes giving a total stack capacity of 400,000 volumes. It is doubtful if each of the four reading rooms will be able to carry the load of more than 6,000 volumes. This will give a total of 24,000 volumes on open access and a total capacity for the building of 425,000 volumes.

Basement

Most of the basement area will be used for book storage. The surrounding small rooms have been proposed as seminar and group study rooms, as roooms for special collections, and as a centre for audio-visual materials. All the rooms on the front of the building will probably be needed for audio-visual purposes. The suggestion that the rooms on the south side of the basement be used for manuscripts and for maps and atlases cannot be recommended. Manuscripts will certainly need to be stored permanently within the controlled environment of the book stack and the library does not yet possess a collection of maps and atlases.

No provision has been made for a staff rest room or for personal coat lockers for staff and the areas set aside for special collections, maps and atlases and manuscripts could well be used for these two staff areas.

Since the goods entrance to this level has been removed, it is not logical to place the receiving area in the basement. Instead it is suggested that the binding area be extended since the original space allotted will be too small.

Ground floor

The ground floor consists of a central entrance, catalogue area and lending desk from which opens a book stack area. All these areas are flanked by two large reading rooms. These two reading rooms will only be strong enough to bear the weight of book shelves along the walls dividing them from the central entrance, catalogue and stack area. It is suggested that the display cases intended for these walls be abandoned and free-standing wall shelving six shelves high be substituted. The wall of each reading room will accommodate a maximum of 4,500 volumes on this shelving. A further 4,000 volumes could be accommodated on low island shelving, three shelves high, placed in the middle of the reading room providing that the units are placed in line with a line of columns.

The goods entrance for the library has been changed to this level and this will result in the loss of 2½ modules of stack area in providing a clear way through to the lifts. The remainder of the stack area on this floor will be used for storage of heavily used titles.

First floor

The first floor consists of a central browsing room, light well and stack area flanked on both sides by reading rooms. The browsing room should be used to house the Palestine Collection. The two reading rooms can be treated in the same way as those on the ground floor and these four rooms on two levels will house some 1,200 seats or enough for a ratio of one seat for every five students on the main campus. This ratio is recommended for British and North American libraries.

Second floor

The second floor consists of a central popular reading room, a light well and a staff working area flanked on both sides by reading room.

It is suggested that the popular reading room be used to house popular periodicals and newspapers. The staff work area is far too small for the number of staff required to operate a major library and it is suggested that the rear portion of the two reading rooms be incorporated into the staff work area and divided from the public parts by partitions.

The public parts of the two reading rooms should both be used for periodicals. One room should be for the science and technology titles and the other for the arts and humanities titles. Each public room should house the last few years of the relevant abstracting and indexing tools on wall shelving and the current issues only of the most heavily used titles on island shelving. Back issues of periodicals and abstracting tools will have to be housed in the stack area below.

The rear portion of one of the reading rooms may be used for the administration of the Department of Special Collections and for the housing of the most recently received material. Other material will have to be housed in the lower stack areas.

The rear portion of the other reading room should be used for the Acquisitions and Cataloguing Departments although care will have to be taken to confine shelving to the wall only.

Top floor

The top floor contains 10 offices for the senior staff of the library. These offices should be used for the Director-General, his Secretary, the two Assistants to the Director-General, the Heads of Technical Services, Reader Services, the Library Expert(s), the Senior Administrative Officer and his staff and secretarial facilities.

This building is unsatisfactory for the functions of a major library and the outline proposals made above are the maximum that the structure can be expected to support.

Computers

The use of computerized methods in University libraries is growing and several useful systems exist. The University of Mosul now has an excellent opportunity to develop its manual systems in such a way that computerization can take place with the minimum of difficulty. It is important that the outline of a total system be decided at the beginning and that development take place in a logical order.

A desirable system for the University libraries would include computerized on-order files for monographs, computer produced catalogues and lists, computerized lists of periodicals and of binding information. Computers can also be used to control the loan of materials and much of the associated record-keeping. Computerized information retrieval services should not be attempted in an individual library but should be used through a regional or national network whose centre in Iraq should be the Scientific Documentation Centre in Baghdad. The computing facilities at present available in the University of Mosul are unsuitable for library operations and any actual implementation of plans must wait until adequate computer-power is acquired. When such possibilities are available a start should be made in dealing with periodical records. These comprise a limited number of information records and will provide a useful introduction to the discipline of computer activities. With experience gained from this exercise the handling of monographs can begin. By linking activities with the acquisitions and cataloguing system proposed many of the records can be compiled automatically by the book supplier. When this acquisitions and cataloguing system is functioning smoothly it will be possible to computerize the handling of loans. Since any cataloguing and loans system involves the processing of every book in the stock of the library it is important to make a number of basic decisions about the system specification before the stock becomes too large.

The technology of library automation is advancing very rapidly. At present a combination of Blackwell North America acquisitions and cataloguing and Telepen loan control systems seems to present many advantages. As an alternative the IBM Company are developing a complete library automation "package" called ELMS-DOBIS, and this, if it can be combined with the Blackwell North America book acquisitions system could be considered seriously.

It is important to stress that the library must first decide what operations it wishes to carry out and then devise systems which use computers most efficiently to achieve these ends. The computer must not be allowed to impose the systems that the library can use.

Stocks

Provision of textbooks within the University is generous and students probably have access to the basic works that they require. However the wider range of materials that will enrich the study to be carried out is badly deficient.

Various standards exist for the recommended size of collections in academic libraries but none have been prepared with the special conditions of the Arab States in mind. The Arabization of university instruction is underway in Iraq but until far greater numbers of titles are available a considerable proportion of the stock of the Central Library will be in English. In total there are about 12 volumes available per student user of the Central Library and about 8,000 volumes are added to stock each year. This rate of accessions should be doubled for the next five years if a very modest target of 25 volumes per student is to be achieved. In setting this target it must be borne in mind that a figure of less than 125 volumes per student would in Great Britain or North America be thought seriously deficient.

This target can be achieved by use of the procedures outlined in the Acquisitions Section of this report and every effort should be made to reach them. At the same time as these increases in stock are being made, older material must be placed in store. It will be unhelpful to consider out of date textbooks as part of the current stock available to users.

In order to support masters level studies at least 5,000 English-language periodical titles are required and work should begin now on selecting them and placing orders. A determined effort should also be made to acquire the major abstracting, indexing and bibliographic tools. Without these tools users of the library will be unable to use the periodical collection effectively and will be unaware of the wider range of material which may be obtained by inter-library loan or photocopy.

Technical services division

As the organization chart at the beginning of the discussion of the Central Library shows, each of its departments is directly responsible to the Assistant to the Director-General. It is clear that this places a very large burden of decision-making on the Assistant to the Director-General and on the library expert who is available for advice and assistance.

It is common in academic libraries to group the functions carried out into two categories - technical services and reader services. It is strongly recommended that the same division be applied in the Central Library. The Acquisitions Gifts and Exchanges, Periodicals and Classification and Cataloguing Departments should become a Technical Services Division while the Loans, Reference and Special Collections Departments should form the Reader Services Division. Each Division should be responsible for routine day-to-day administration and management of the constituent departments. They will form a convenient link in the chain of management and policy-making. Each Division should be led by a well-qualified professional librarian and such a person will not be easy to find in Iraq at present. Until such qualified Iraqi librarians are available, serious consideration should be given to the recruitment of division leaders from abroad.

Stock selection

The function of stock selection in university libraries is frequently carried out by reader service departments since limited funds must be spent on the most useful items. At Mosul funds are available and the most urgent task is to build up substantial stocks of material to support the teaching and research interests of the University. It is therefore proposed that the selection function be combined with the Acquisitions Department. A suggested combined system is described below.

Acquisition Department

There is a great need for a strong Acquisitions Department in the Central Library. The present procedures of the Department are barely sufficient to deal with 9,000 acquisitions a year. If the moderate standards set out further on are adopted, the Central Library will have to add at least 21,000 volumes a year for five years in order to achieve a desirable level of book-stock. This represents an increase of 133% in the rate of acquisitions. It is quite clear that such an increase cannot be achieved without a total reorganization of the systems used.

In considering a reorganization of the systems the work of the Acquisitions Department must not be seen in isolation from the processes that occur before and after acquisitions. These processes are those of selection and cataloguing, classification and book processing. It is essential that each stage in the chain of processes should be compatible with the other stages and that each should involve the minimum of effort, especially repetitive effort. One supplier, B.H. Blackwell of Oxford, England, is able to offer a complete service for all the stages in the chain while most other suppliers are only able to offer one or two stages.

The system operates in the following way:

1. The library, together with a representative of Blackwells, compiles a "profile" of the subject areas in which it wishes to purchase English-language books. This profile is compiled by use of a detailed standard thesaurus of subject terms and enables the detailed specification of subject areas and level and type of book.

2. This "profile" is matched via computer each week with lists of all newly published books from Britain and North America. Details of books which match the "profile" are printed out onto individual order slips which are sent to the library for consideration.

3. These slips are scanned by the library. The library thus has the opportunity of rejecting selections made by the computer but is not involved in the lengthy process of selection.

4. The multipart order slips are separated and one or two copies are kept to form an on-order file and if necessary the final copy on card may be placed in the public catalogue. All those slips contain full bibliographic data in a standard format and are suitable for filing. The top one or two copies of the slips are stamped with the library order number and are sent to Blackwells.

5. In accordance with pre-arranged instructions Blackwells prepares the book for dispatch to the library. This preparation can consist of printing from the computer a full set of standard catalogue cards complete with classification and subject headings. A full set of book pockets, labels, book cards and spine labels can also be prepared. All these cards and stationery are placed loose inside the book before it is sent to the library.

6. The library receives the book, checks it against the order and invoice and passes the invoice for payment. If necessary a copy of the invoice can be stamped with the accession number against each entry at the same time that the number is stamped in the book and the completed copies of invoices bound together as an accessions register.

7. The catalogue cards and classification are checked and the cards filed in the catalogue. The book stationery is fixed into the book and it is ready for the shelves.

8. All books acquired in this way from Blackwells are noted on a master computer tape and the library can at any time ask for a complete or partial duplicate of the catalogue in the form of cards, microform or computer tape. Thus the major task of conversion in the future to a computerized system is undertaken at the stage that the book is acquired rather than as an expensive later operation.

The advantages of cost, speed and standardization of such a service are very great. For a library such as at Mosul where rapid growth and shortage of experienced staff are important serious consideration should be given to the use of such a total system as outlined above.

For Arabic books no such service is available and the more traditional methods must be used. Available staff should be organized as effectively as possible and emphasis should be placed on co-operation with other university libraries in Iraq to work towards design of a good service with a national bookseller.

Gifts and Exchanges Department

The Gifts and Exchanges Department has begun well and is developing contacts with several libraries in Iraq and elsewhere. It is in this way bringing to the Central Library material which might not otherwise be acquired and spreading to other libraries publications of the University and the city of Mosul. It will however remain, in terms of quantity, a small contributor to the stocks of the Central Library. While numbers of staff available are limited it is difficult to justify devoting more than the present resources to the Department. The present staff of one person with occasional clerical help should maintain the existing programme of exchanges as far as possible but it will not be possible to expand the range of contacts for the present.

As soon as the Acquisitions Department is able to deal with them the collection of pamphlets that is accumulating in the Gifts and Exchanges Department should be transferred and incorporated into the catalogued stock of the Central Library. Only then can the full value of the exchanges be achieved.

The member of staff appointed to this Department should have sufficient knowledge of English to deal with correspondence in that language. He or she should maintain close relations with the other departments of the Technical Services Division. Every effort should be made to ensure that the acquisitions policy of the Department conforms with the policies of the other departments of the Division.

Periodicals Department

The wise decision in 1975 to centralize some aspects of periodicals management has not yet resulted in a fully efficient system. It is necessary to establish a comprehensive collection of periodicals and guides to their contents before the University is fully able to meet the needs of masters level students and of staff. It is difficult to estimate the number of titles that should be received but for a university of the size of Mosul some 5,000 non-Arabic titles may be suggested as a minimum. The existing collections may be used as a basis for developing the collection. With the help of standard lists it will be possible to select additional titles and the advice of teaching staff should be sought to complete the work. Lists of most frequently cited and requested titles in various fields exist and these enable decisions regarding the length of holdings to be made. Back files of some of the most frequently consulted titles should be kept in full-sized copies acquired either as reprints or as second-hand copies. Other lesser used titles may be held as microforms. These periodicals will be of little use without the tools which provide guidance to their contents. These tools such as abstracts and indexes are essential and priority should be given to obtaining good sets of them. Some of the titles that are already being received are shelved in the reading rooms and some in the periodicals room. They should all be housed together.

The acquisition of periodicals published outside the Arab States should be centralized with one agent who should also be responsible for providing back issues in the forms of reprint, second-hand and microform. Wherever possible second-hand back issues should be bound by the supplier. The service of the present periodicals supplier should be carefully evaluated before subscriptions are placed for current issues for 1978. The advantage of concentrating book and periodical supply with the same agent should be considered seriously.

While postal deliveries remain unreliable the system of bulk collection and supply should be maintained. The existing arrangements whereby bulk deliveries are made to the separate libraries of the Medical and Agriculture College should also be maintained. The recent improvements in recording the receipt of materials should be continued. An ownership stamp which incorporates the date of receipt should be used.

With the move to the new Central Library the classification of periodical titles by Dewey and the use of Cutter numbers should be abandoned and titles should be arranged and displayed in alphabetical order within broad subject groups. This change of routine will release a considerable amount of staff time which can be used in dealing with the greater number of titles to be received. The correspondence records of the Department are well kept but there is some evidence that all questions are not dealt with quickly and if possible there should be a qualified person in charge. The photocopy machine is poor and unreliable and should be replaced by one of a manufacturer with reliable servicing arrangements in Iraq.

Classification and Cataloguing Department

The use of the Dewey Classification and of dictionary catalogues with Library of Congress subject headings should be continued as should the division of stock and routines into two divisions for Arabic and non-Arabic material. A firm policy of quality control over the choice of heading and classification is necessary and the present efforts by the Library Expert in this area should gradually be taken over by an experienced member of the Department. To aid this quality control as much of the work as possible should be acquired from outside sources. It is in this aspect that the greatest immediate improvement can be made.

The acquisitions system outlined above can be seen as an integrated part of the cataloguing and classification system. For non-Arabic books it is possible to buy full cataloguing and classification data at the same time as the book is ordered. This data is of standard and fully professional quality, and is available at far less cost than locally produced data. It is strongly recommended that catalogue cards and spine labels be purchased and that a minimum of alteration be made before the cards are filed in the catalogue. Some of the staff time at present devoted to producing original classification and cataloguing and which would be released by the use of bought services should be used in catalogue maintenance. The existing catalogues need much editing to reconcile differences in practice in past years and this work could be combined with the filing of new cards. In this way inconsistencies between new and old standards could be removed. For the future the use of a service such as Blackwells will enable computerization to be undertaken with a minimum of conversion work since all the catalogue cards purchased are automatically recorded in machine-readable form. For Arabic books the position is less easy and much more original cataloguing and classification must be done at Mosul. Efforts should be made to acquire from Baghdad University Central Library the list of subject headings in use. The Middle East Accessions List produced by the Library of Congress Office in Cairo could provide guidance and steps have been taken to send a complete set to Mosul. The use of a catalogue card duplicator will reduce the amount of typing involved in this Division. No fully satisfactory method of computerizing Arabic languages has yet been established although experiments have taken place at the National Library in Cairo and elsewhere. The University of Mosul should not at present attempt any work in this field.

Reader Services Division

The same advantages of cohesion and organization mentioned in respect of the Technical Services Division apply to the Loans, Special Collections and Reference Services which should be grouped into a Reader Services Division. The Loans and Reference Services are those where most users of the Library will come into contact with its staff and it is important that they be efficient and well run.

Loans Service

It is clear that the loans services of the Central Library will be under very great pressure to increase rapidly as a result of increased student numbers, a higher level of studies in the University and a greatly enlarged stock of material available for loan. The present system is slow and inefficient and lacks control over the length of loan period.

It will be necessary to give the borrower of the book some indication of when it is to be returned to the library. The most common way to do this is to have a date label inside each book on which is stamped the date the book is due. Books in the Central Library do not at present have such a label and the work of fixing one inside each book in the library should be begun now as books are re-shelved after use. In this way the volumes in frequent use are processed and a useful check is provided of those books that are never borrowed. Each book as it is borrowed can then be stamped with the date, perhaps four or six weeks ahead, by which it should be returned. It is strongly recommended that the present system of recording loans by means of two copies of a loan slip be altered to the following method. A single loan card should be filled in by the borrower and arranged in a single sequence by class number. Every four or six weeks depending upon the loan period the colour of the cards available to be filled in is changed. In this way the single file of loan cards can show quickly the items that have been on loan for too long. Books on loan may be traced via the class number and only a single record has to be cancelled when the book is returned. The practice of placing a second copy of the loan card on the shelves in place of the book appears to serve no very useful purpose and could be abandoned.

Special Collections

It is important to begin now to establish a policy for the special collection of material within the Central Library. At present little effort and money is put into the upkeep of the collections and as a result their full value to the University is not being realized. It is suggested that responsibility for all the major special collections be given to a new Department of Special Collections which would have the duty of maintaining them. Within this department two of the collections may be made the responsibility of a single member of staff. These two collections are those of official publications of the Government of Iraq and of publications of the United Nations. The member of staff dealing with these should be given training in the methods of acquisition, handling, storage and exploitation of these publications. The best training in Iraq Government publications will be given by the Central Library of the University of Baghdad and for United Nations publications the United Nations Information Centre in Baghdad will provide guidance in the established methods for their control.

Until proper training has been possible a start may be made in grouping the documents together according to the issuing department or agency and in the case of United Nations material by type of publication, i.e., Offical Records, Treaty Series, etc. Iraq publications will require cataloguing and classifying although arrangement of them on the shelves may be by department. United Nations material should on no account be catalogued or classified for full bibliographic control of them is provided by finding tools prepared by the United Nations.

As soon as the new Central Library building is available the Department of Special Collections should be established and all inquiries for special material should be made there. The third major collection of special material is a collection of publications on the question of Palestine. This collection should be administered by the Department of Special Collections but should be housed in a separate reading room in the new building where all materials relating to Palestine can be brought together.

Reference Service

The growth of higher level work within the University will rapidly result in increased demand for reference and inquiry services. The base for these services must be in the reading rooms of the new building dealing with books and periodicals. Each reading room must have a comprehensive collection of bibliographic and reference works. The present collections in the Social Sciences, Science and Technology reading rooms lack many essential titles and a thorough programme of stock building based on such guides as Winchell - Guide to reference books and Walford - Guide to reference works must be undertaken. Abstracting and indexing services and other guides to the contents of periodical literature must be grouped together in the periodical reading room and if at all possible placed on open access to readers. At the same time as the stock is being built up a group of professional library staff must be trained in reference work and must become familiar with the use of the stock. Only in this way will they be able to guide users to find the answers to their queries.

A printed guide to the library and the services it can offer should be prepared at the beginning of each academic year by the staff of the Reference Service and should be distributed to all students. The library staff should try to ensure that all new students receive an introductory tour of the library at the beginning of their studies and that when higher level work is begun, each student is given the possibility of discussing the work with a reference librarian to discover what resources the library has to help him in his studies.

A programme such as that outlined above will require a large number of library staff and these will not be available immediately. However the plans should be made now so that a determined effort to recruit and train suitable staff can be started.

B. COLLEGE AND DEPARTMENTAL LIBRARIES

The full value of these libraries will not be achieved if they remain independent and unco-ordinated as at present. Through the Higher Library Council the University must develop a unified system in which the same policies and practices are followed in each of the libraries and in which the library staff form a cohesive whole. Every opportunity should be taken through the Higher Library Council and through the common action of librarians to adopt common systems. Book and periodicals ordering and handling are obvious examples of areas where standard practices can quickly be adopted. Steps toward the creation of an effective union catalogue of materials in all the libraries can begin now and will be much helped by the long-term plans for automated systems. As the library staff gain in experience they should take steps to maintain regular contact with each other to share professional ideas.

The system of libraries is at an early stage of development and action now to create a cohesive organization will have long-term beneficial effects. The alternative is a collection of totally independent libraries in which money and professional staff time is wasted and members of the University have increasing difficulties in finding the materials that they require.

College of Agriculture and Forestry Library

The future of the College of Agriculture and Forestry Library depends upon the future of the College itself. The physical distance of the library from the Central Library will continue to make communication and contact difficult and much will depend on the quality of the staff available. Every effort should be made to involve the staff of the college library in activities in the Central Library and once each month a joint meeting should be held at the Central Library to discuss future development.

It is wise to use the same agent as the Central Library for the acquisition of books and periodicals and given the distance maintenance of a wholly independent cataloguing and classification department is justified. The bookstock is small for the number of students and the present figure of roughly 10 volumes per student should rapidly be raised to at least 25 volumes per student before the library can begin to meet needs. The library is adding approximately 3,500 volumes to stock each year and this figure will need to be doubled to achieve the required level of bookstock within five years. It would be sensible to use an acquisitions system of the type recommended for the Central Library, so that the two acquisitions and cataloguing units could be integrated if necessary when the necessary computer facilities are available. Immediate steps should be taken to subscribe to the Bibliography of Agriculture and a five-year backfile should be obtained.

The new building for the library has been commented on elsewhere in this report. It will unfortunately represent little improvement over the existing facilities.

College Libraries - Arts, Education, Engineering

The College of Arts, Education and Engineering all have independent libraries situated within 200 metres of the present Central Library site and within 500 metres of the new library building. At present the Central Library is overcrowded and these extra seats are necessary but when the new library building is occupied, it is doubtful if the extra seating capacity will be required.

Students who use these libraries will have access to a limited range of books and no periodical titles. Their reading will thus be limited to a narrow range of material and they will be without the services of trained librarians to organize and manage the stock. It is, therefore, recommended that the Higher Library Council establish a policy that no college situated on the main University Campus be allowed to establish a major library, but that their collections be limited to popular material. This policy will be unpopular with the Colleges but any other course of action will be wasteful of skilled staff and result in extensive unnecessary duplication of materials.

College of Medicine Library

The Library of the College of Medicine is the only college library in the University which has a professionally qualified staff member. As a result the library exhibits a greater degree of organization and development than those of the other colleges. However, this organization and development have in some ways taken place independently of the Central Library. If this tendency continues it will not be possible in future to establish a cohesive system for all the libraries of the University. For this reason it is important that any further development of the systems and organization of the library be compatible with the plans of the Central Library.

At present the loan system in use is the same as that used in the Central Library and book and periodical acquisition is from the same agent. However, the bookstock is not recorded in the catalogue of the Central Library. The use of the National Library of Medicine Classification is a wise choice which does not prevent inclusion of author entries for the stock of the Medical Library in the catalogue of the Central Library.

The existing premises for the library are small and unsatisfactory and there are hopes that a new building can be approved. This building should be designed from the beginning with full consultation by experienced librarians. The two new library buildings now being constructed for the University both have serious faults which limit their usefulness as libraries. It would be unfortunate if a third building were designed in the same way.

The senior staff of the library report to the Directorate-General of Libraries and as such should be regarded as part of a team providing library services to all sections of the University. It will be unfortunate if the geographical isolation of the Medical Library and the specialist nature of its stock results in its becoming an independent library unrelated to the other libraries of the University.

Departmental libraries

The various departmental libraries that exist within the College of Science are unco-ordinated and unrelated to the Central Library. The limited services that they provide duplicate those of the existing Central Library and their only value appears tc be the provision of extra seating capacity. With the use of the new Central Library building this extra seating will not be necessary. The stock of the Central Library will contain a wider range of material than the small departmental collections and will have a full range of catalogues and indexes. Students using the Central Library will thus be encouraged to broaden their reading and not to limit themselves narrowly to designated textbooks.

All the libraries are within two minutes walk of the new Central Library and it appears logical to assume that the use of them will decrease as the full advantages of the new building are realized. As this happens they should be closed and the stocks and staff integrated with the Central Library.

Deans and heads of departments may wish to retain small book centres to control the storage and supply of class-use textbooks and the existing library rooms and shelves may be used for this purpose.

1.4 Summary of main recommendations

1. The University must establish through the Higher Library Council a definite policy for all the libraries.

2. The Director-General of University Libraries must be given clear control of the implementation of all library matters and must be a full member of the University Council.

3. The Central Library must act as a focal point for all library activities within the University.

4. The management structure of the Central Library should be reorganized into Technical Services and Reader Services Divisions each headed by an Assistant to the Director-General.

5. The Technical Services Division should consist of the Acquisitions, Gifts and Exchanges, Classification and Cataloguing, and Periodical Departments.

6. The Reader Services Division should consist of the Loans and Reference Services and the Department of Special Collections.

7. Regular meetings should be held at the various levels within the management of the library to discuss development and monitor progress.

8. The number of staff of all types employed in the Central Library should be greatly increased and consideration should be given to the employment of foreign librarians on fixed-term contracts while Iraqi staff are trained.

9. Almost all the existing staff in professional posts should be encouraged to become trained, ideally at library schools outside Iraq.

10. A detailed system of budgeting and financial control should be established to control a much increased current expenditure.

11. The stack areas and the reading rooms must not be overloaded with bookshelves for the structure is not strong enough.

12. The University libraries should not undertake only computerized activities until adequate prior analysis of needs has been completed.

13. The bookstock of the Central Library should be rapidly increased to at least 25 volumes per student.

14. At least 5,000 English-language periodical titles should be acquired together with the appropriate abstracting and indexing tools.

15. An acquisitions system for non-Arabic books based on such a service as that offered by B.H. Blackwell of Oxford, England, should be adopted.

16. The existing procedures of the Gifts and Exchanges Department should be continued.

17. In view of prevailing problems, consideration might be given to changing the present periodicals agent.

18. Catalogue cards and book processing labels should be acquired as part of the acquisitions process and should be adapted as little as possible before use.

19. The existing catalogues should be edited to remove inconsistencies in previous practice.

20. A single copy loan card should be completed for each transaction and each book should have a date label on which can be stamped the date by which it should be returned.

21. A Department of Special Collections should be established.

22. The member of staff dealing with the collections of Iraq official publications and the United Nations Deposit Collection should be given training in Baghdad.

23. The collections of reference works in the reading rooms should be thoroughly revised and expanded.

24. A printed guide to the services of the Library should be prepared and distributed at the beginning of each session.

25. All the College and Departmental libraries must be joined in a cohesive system with common procedures, practices and services.

26. The College of Agriculture Library should double its present rate of book acquisitions.

27. The new library building for the College of Agriculture must be extensively modified to improve its suitability for library purposes.

28. The libraries of the Colleges of Arts, Education and Engineering should not be allowed to develop into major collections.

29. The activities of the College of Medicine Library should be more closely integrated with those of the Central Library.

30. The proposed new library building for the College of Medicine should be designed after full consultation with experienced librarians.

31. The Departmental Libraries of the College of Science should be closed when the new Central Library building is in full operation.

2. UNIVERSITY OF BAGHDAD - CENTRAL LIBRARY

2.1 Background

The University of Baghdad was founded in 1957 and at present consists of 14 colleges and nine research centres as well as a graduate school of library science. It has 28,143 students of whom 1,284 are at post-graduate level. The premises of the University are scattered, mainly in the north-west area of Baghdad. A new site for the University bounded on three sides by the river Tigris has been set aside and a headquarters building already constructed. It is hoped that a new Central Library can be constructed there within five years. Each college maintains its own library which is responsible to the college and not to the Central Library of the University. The total stock of books and periodicals in the college libraries is 446,777 items or rather more than twice that of the Central Library. There is very little co-ordination between the college libraries and the Central Libraries.

The Central Library occupies specially designed but inconvenient premises between a busy road and a railway embankment. It is possible that the adjoining university bookshop will shortly be moved elsewhere and the space used for the periodicals collection. The stock is maintained on closed access in a four-storey structural stack. The ground floor is used for Arabic books, the two middle floors for books in English and the back issues of periodicals are on the top floor. There is a lift for materials but not for people. Early in the history of the Library the stack was open to all students but severe losses occurred as well as much misplaced stock. Faculty members and graduate students only may now use the stack but both problems still remain although to a lesser extent. A limited number of reference works are housed in a separate reading room and there is also a separate reading room for periodicals. Some 1,200 subscriptions are held in classified order but the range of abstracting and indexing services appears to be small. A collection of United Nations and Specialized Agency publications is kept in a special room and is fully catalogued and classified according to the Document Series Symbol. There is also a separate map room, a microfilm room and a room for Iraq Government documents as well as a Gifts and Exchanges Section and a library bindery. The latter formerly undertook work for several libraries in Baghdad unconnected with the University but now is limited to the Central and College Libraries. A total of 400 seats is available for readers, 30 of them in small study carrels. The seating to student ratio is 1:70 in the Central Library but an unknown number of seats exist in the College Libraries.

Books are selected by members of the teaching staff and standing orders are maintained with nine publishers for the bulk of their publications. Most British books are obtained through Kegan Paul who act in this case as booksellers rather than as publishers. Two separate cataloguing and classification departments, for Arabic and English books, are maintained. The latter contains extensive sets of the Library of Congress Catalogs. The Dewey Decimal Classification is used

with Cutter numbers for the English books and a local scheme for Arabic books. Catalogue cards are duplicated by stencil and in addition to the main public catalogue, in dictionary form using Library of Congress Subject Headings, separate catalogues of the United Nations Documents Collection and the periodicals stock are maintained. A copy of each main entry card is sent to the University Libraries of Basrah, Mosul and Sulaimaniya as a depository set for use in cataloguing local accessions.

The Central Library of the University of Baghdad is the oldest and largest library in Iraq and the influence of its practices and staff is to be found in most other libraries in the country.

3. CONCLUSION

Academic institutions in Iraq are in process of rapid change and expansion and demands on library services are increasing rapidly. Until comparatively recently the Central Library of the University of Baghdad was the only major academic library in Iraq and it was natural that its policies and practices should have been taken as the model for other libraries elsewhere. However the other institutions of higher education are now capable of standing alone and devising their own methods and style. The same is beginning to be true of their libraries but this tendency could lead to unsatisfactory development. Each library system serving an individual institution will need to develop its own standards of operation related to the particular needs of the university. But at the same time close co-operation should be encouraged between the various systems so that a national policy can be adopted. This policy should as far as is possible take into consideration regional and international attempts at standardization of many of the technical questions of library operations. Examples are cataloguing rules and inter-library lending. Co-operative policy discussions will need a framework in which to operate and at present there appears to be no official basis for such work.

It is recommended that the Ministry of Higher Education and Scientific Research establish a National Commission for Library and Documentation Services which should act as a high-level advisory and policy-making body. Membership should be made up of senior academic, planning and library experts and may total about 20 persons. The National Commission should report directly to the Minister of Higher Education and Scientific Research. The Commission should form Working Groups for Academic Library Services and for Documentation Services. The Academic Library Working Group should include representatives from each of the university library systems in Iraq and should provide a forum at which technical questions of co-operation and standardization can be discussed and solutions agreed to the many problems that arise. In this way a loosely co-ordinated national network of academic libraries can be built up. The alternative is an increasingly inefficient and wasteful collection of separate libraries.

CHAPTER II

DOCUMENTATION SERVICES

1. FOUNDATION OF SCIENTIFIC RESEARCH

1.1 Background

The origins of the Foundation of Scientific Research may be traced back to Law 116 of 1963 which founded the Supreme Council of Scientific Research as an independent body attached to the Council of Ministers. Its duties were to formulate a general plan for scientific research, select the appropriate institutions, co-ordinate scientific work and to establish a Scientific Documentation Centre. In the middle of 1966 the Supreme Council was separated from the University and became the Council for Scientific Research. This Council in turn joined the Ministry of Higher Education and Scientific Research in 1967 and was renamed the Foundation for Scientific Research in 1970. In 1974 the Foundation was removed from the Ministry of Higher Education and attached to the National Planning Board but in 1975 returned to the Ministry.

In 1975 it was estimated(1) that research and development occupied 0.25% of the GNP and was being conducted in 10 other ministries apart from the Foundation. Of the total effort at that time approximately 40% was located in the Ministry of Agriculture, 24% in the Ministry of Higher Education with the Atomic Energy Commission and the Foundation each having about 11%.

1.2 Organization chart

The Foundation of Scientific Research consists of six centres at which research is conducted, the Scientific Documentation Centre and administrative divisions. In December 1976 the organization chart was given as below.

1.3 Scientific documentation centres under the jurisdiction of the Foundation

A. SCIENTIFIC DOCUMENTATION CENTRE

Although the Law which established the Foundation of Scientific Research included in its responsibilities the formation of a scientific documentation centre no action was taken immediately. A report in 1966 by a Unesco consultant(2) recommended the establishment of a national scientific and technical documentation centre one of whose responsibilities would be the collection of reports of research already conducted. In 1967 the same consultant in a second study(3) suggested that a useful example of a centre was to be found in the National Information and Documentation Centre in Cairo. The second study also recommended that a long-range development programme should be formulated to establish a National Science Library in association with a National Documentation Centre.

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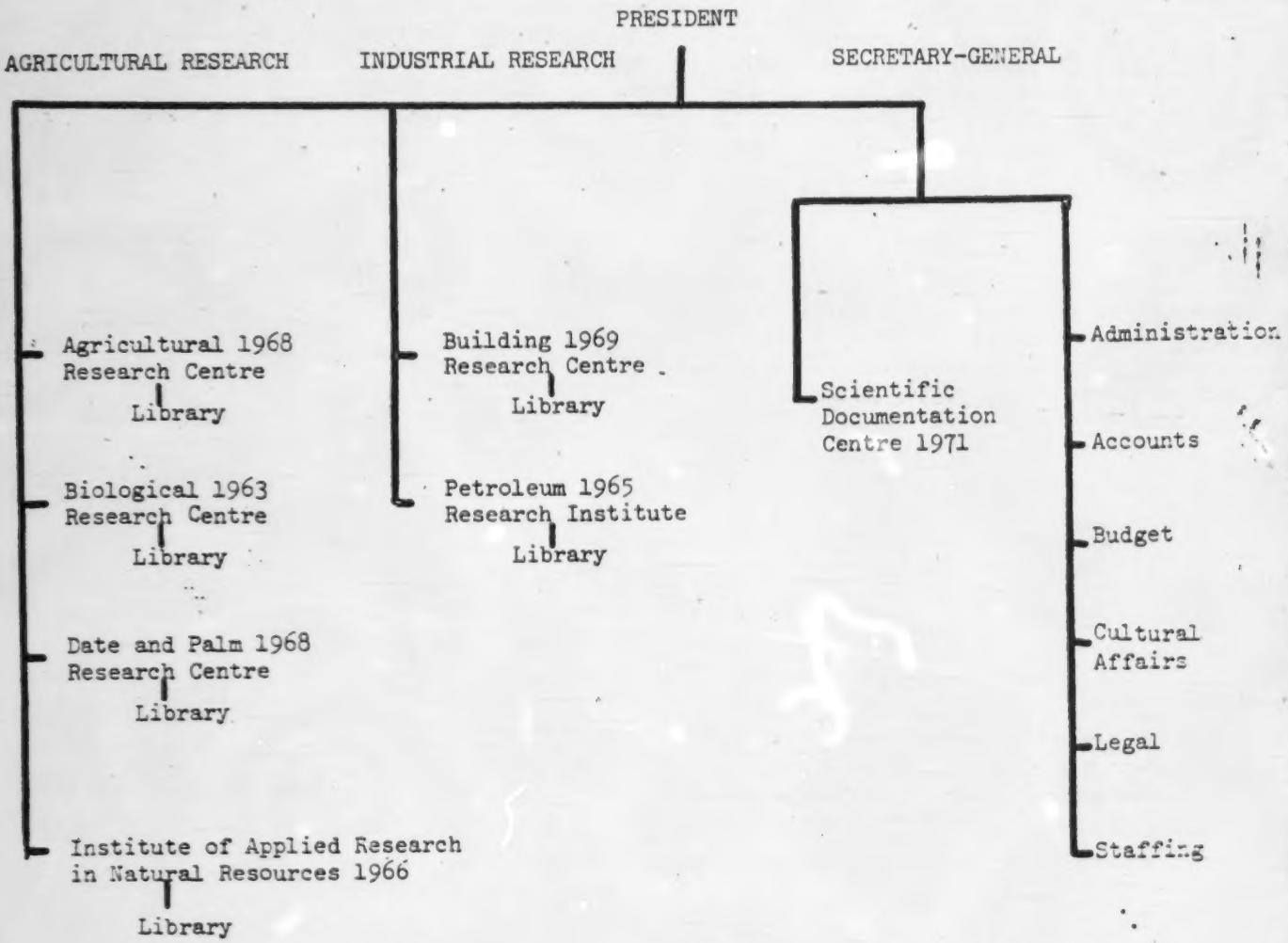
(1) PFETSCH, F.R., Iraq: Science, Technology and Development. Technical Report No. 1. Paris, Unesco, 1975. (FMR/SC/STP/75/245).

(2) KOUPALOV-YAROPOLK, I.C., Iraq: National Science Policy and the Organization of Scientific Research. Paris, Unesco, 1966. (REG/UNESCO/NS/ROU/IRAQ 1)

(3) _____, Iraq: National Science Policy and the Organization of Scientific Research, Second Study. Paris, Unesco, 1967 (18/SC).

1.2 Organization Chart

The Foundation of Scientific Research consists of six centres at which research is conducted, the Scientific Documentation Centre and administrative divisions. In December 1976 the organization chart was given as below:



The report in November 1970 of an Interministerial Committee on a Scientific Documentation Centre outlined the following duties for the Centre: co-operation with the 30 major libraries in Iraq, improvement in the facilities for inter-library loans and exchange and co-operation with foreign countries. Following this report the Scientific Documentation Centre was established on 7 November 1971.

Notwithstanding the implicit suggestions in the Interministerial Committee Report and the explicit comments of the Unesco consultant quoted above, the responsibilities of the Centre were limited to serving the needs of research workers within the Foundation. It appears that the possibility of a change of status to that of a national institution was not ruled out by the letter establishing the Centre.

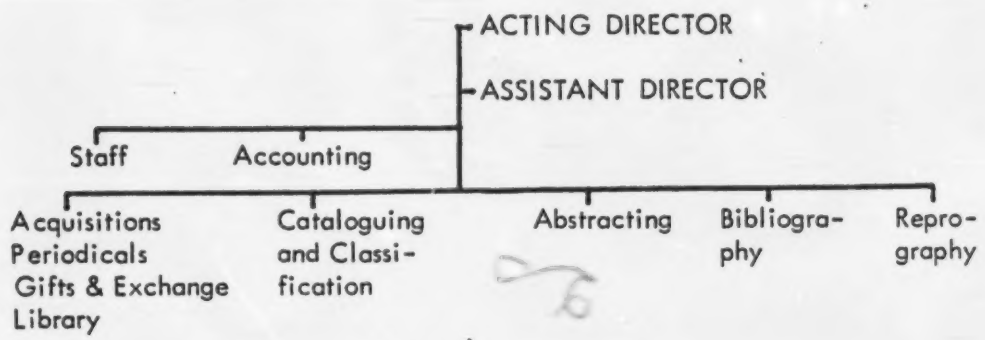
At the request of the Government of Iraq a Unesco consultant spent three months early in 1972 assisting in the establishment of a "National Documentation Centre" by "surveying the existing resources of, and needs for documentation and by drawing

up a plan for services at the national level".[1] In 1973 another Unesco consultant examined science policy in Iraq and recommended[2] as a matter of high priority a State system of scientific and technical information and commented that some progress had been made already which should be integrated at a national level to produce a National Centre for Scientific and Technical Information and Documentation. A further Unesco consultant in the field of science policy noted[3] in 1975 that the Scientific Documentation Centre had made a good start and its ideas and plans were excellent. It needed, in his opinion, many more staff and facilities. Early in 1976 an information science specialist visited the Centre on behalf of the British Council and commented[4] on the lack of a strong central acquisitions policy which had led some research centres to bypass the Scientific Documentation Centre and order materials direct.

Management

The Scientific Documentation Centre is headed by an Acting Director with an Assistant Director as his deputy. The functional work of the Centre is carried out in five departments, for Acquisitions, Cataloguing and Classification, Abstracting, Bibliography, and Reprography. The Acquisitions and Cataloguing Departments act as service departments to the libraries of the six research centres and to the headquarters of the Foundation. The Organization Chart of the Centre is given below:

ORGANISATION CHART



The Centre is responsible for specialist relations with the libraries and librarians of the Research Centres. For administrative purposes these librarians are responsible to the Directors of their centres. No meetings of all librarians from the Scientific Documentation Centre and the research centres appear to be held although occasional individual visits are made for advice. Frequent meetings of the Acting Director, the Assistant Director and the heads of departments are held but the discussions appear to concern relatively minor matters. No development plan for the Centre exists.

(1) HELAL, A.H., Iraq: Scientific Documentation Centre. Paris, Unesco, 1972 (2736/RMO.RD/DBA).
(2) DOBROV, G., Republic of Iraq: Science Policy. Paris, Unesco, 1973 (2863/RMO.RD/SP).
(3) GARCIA, R., Republic of Iraq: Science Policy-making. Paris, Unesco 1975 (FMR/SC/STP/75/120)
(4) LYNCH, M.F. (unpublished report) 1976

Acquisitions Department

The Acquisitions and Periodicals Department is responsible for book and periodical acquisitions for the Headquarters of the Foundation, for the Scientific Documentation Centre and for the research centres. A central budget for materials is controlled by the Acting Director of the SDC and was in 1976 for the first time allocated to the various centres. The total for 1976 is as follows:

FOUNDATION FOR SCIENTIFIC RESEARCH - BUDGET FOR BOOKS AND PERIODICALS 1976

Scientific Documentation Centre	ID.10,000	20%
Building Research Centre	?	
Natural Resources Research Centre	?	
Agriculture Research Centre	?	
Date and Palm Research Centre	?	
Biology Research Centre	ID.7,000	14%
Petroleum Research Centre	?	
Foundation Headquarters	ID.3,000	6%
D-G Scientific Welfare	?	
TOTAL	ID.50,000	

Requests for purchases of books or new periodical subscriptions are initiated by the research staff in the centres who obtain the approval of the Director of their centre before submitting requests.

Periodicals are mainly ordered from a single agent in the United Kingdom from whom they are received by bulk delivery. Distribution of books and periodicals to the libraries of the various centres is irregular and is the cause of criticism from the centres. A Union Catalogue of Periodicals in the Foundation was compiled in 1975 and lists 578 titles in Dewey order.

Gifts and Exchanges

A small Gifts and Exchanges Section is maintained as part of the Acquisitions Department. Publications of the Scientific Documentation Centre are exchanged on a one for one basis with institutions in Iraq and abroad. Exchange relations with institutions outside the Arab countries have not been strongly developed.

Library

The Library of the Scientific Documentation Centre is part of the Acquisitions Department and was established during 1976. The book collection consists of approximately 350-400 English-language volumes in science, technology and documentation. There are also approximately 150 books in Arabic, and 20 university theses. The stock is selected by a committee composed of the acting Director of the SDC and the Department heads. The periodicals collection displays some 230 titles among which are several abstracting and indexing services. The titles of the periodicals and abstracting services appear to have been chosen at random and there is no evidence that the single member of staff of the library is familiar with the use of the latter. A table with four seats is provided but users of the library, apart from members of the Centre itself, are said to be extremely rare.

Cataloguing and Classification Department

The Department of Cataloguing and Classification is responsible for dealing with all the books and pamphlets added to the stock of the several libraries of the Foundation. Cataloguing is in accordance with the Anglo-American Cataloguing Rules 1967 which, however, have been somewhat abbreviated in questions of pagination etc. Information from Cataloguing in Publication (CIP) records is sometimes used for guidance but original cataloguing is normally preferred. Unit entries are typed on catalogue card stencils and sets of cards are prepared. Classification is by the Universal Decimal Classification (UDC). Cutter numbers are not used but instead period divisions from the Colon Classification are assigned. Each research centre is provided with an author, title and classified catalogue of its stock together with a subject index to the classification. Work is well under way in the compilation of a Union Catalogue of the holdings of all the libraries of the Foundation. It will contain 10,000-12,000 entries and will have author, title and classified sequences.

The Department has a staff of four all of whom have qualifications in librarianship.

Bibliography Department

The Bibliography Department is responsible for the compilation of bibliographies and lists on subjects of interest to the Foundation. The first two works were a retrospective bibliography of Iraqi scientific and technical reports and a list of research reports by members of the Foundation. These reports were printed and were compiled at the request of the Foundation. In 1975 and 1976 four issues of a current announcement service called "Signal Bulletin" were issued. These bulletins gave titles and bibliographic information of papers in a range of foreign journals received by the research centres. It was found, however, that the delay in producing the bulletins was too great for them to have any use and the project was abandoned. Three major-subject bibliographies of research reports have been prepared, on Irrigation in Iraq, on Minerals in Iraq and on Petroleum in Iraq.

The Department is in the early stages of editing entries for a Union List of Periodicals in the University Libraries of Iraq. Entries are being received from all the five established universities - Baghdad, Basrah, Mosul, Munstansiriya and Sulimaniya, and the considerable task of editing for consistency has begun. This work is being combined with a revision of the Union List of Periodicals in the Libraries of the Foundation which was compiled by the Acquisitions Department in 1975.

The Department has just assumed responsibility for preparing entries for Iraqi agricultural research work for submission to the AGRIS and CARIS information systems of the Food and Agriculture Organization in Rome.

Abstracting Department

The Abstracting Department is responsible for the production of abstracts of papers delivered at conferences in Iraq. In rare cases author abstracts are available and are used. The abstracts are indexed by author and subject and a separate issue of the bulletin "Scientific Abstracts" is devoted to each conference.

The Department hopes in future to be able to abstract papers appearing in scientific journals and bulletins published in Iraq.

Reprographic Department

The Reprographic Department is responsible for microfilm services as well as reprographic work.

The microfilm section possesses three cameras and a fully automatic film processor. A roll-film reader/printer, a cassette reader/printer and two cassette readers are available. For microfiche work a jacketing processor and a diazo fiche copier are provided. Some of the equipment is not yet fully operational because of installation difficulties.

The reprographic section has a photocopier, an electronic stencil cutter and a stencil duplicating machine. The majority of the publications of the Centre are produced by typed stencils.

The Department has also recently purchased a large offset printing press but has experienced major difficulties with it and it has not been used for the production of covers for publications and other work for which it was intended.

The Department has a total of five staff, some of whom have had training in reprographic or microfilm techniques.

Premises

The Scientific Documentation Centre at present occupies a villa overlooking the River Tigris several kilometres from the main Foundation site. Adequate space for most of the functions of the Centre is not available and the problems posed by distance from the majority of users of the services of the Centre are great. The Foundation hopes to place great priority on the construction of an adequate building for the Centre on the main site and in the interim a search for larger premises nearby is being made.

B. AGRICULTURAL RESEARCH CENTRE

The Agricultural Research Centre was founded in 1968 and is situated at Fudailiyah 50 kilometres from Baghdad.

In the time available it was not possible to visit the library of the Centre.

C. BIOLOGICAL RESEARCH CENTRE LIBRARY

The Biological Research Centre was founded in 1963 and occupies several modest buildings in the present University district of Baghdad. The Centre maintains close relations with the College of Science of the University and with the medical establishments. There are no immediate plans to move the Centre to the main Foundation site.

The library of the Centre is housed partly in one small room and partly in the small conference room adjoining the office of the Director. A small stock of books is held and a number of specialist journals including several abstracting and indexing services. The Centre prefers not to duplicate materials available to them in the Library of the College of Science or the Central Library of the University. However the services available from the libraries of the University are increasingly being restricted to members of the University.

This Centre is the only one of those of the Foundation not to have a librarian with any training and the services offered by the library are thus limited.

D. BUILDING RESEARCH CENTRE LIBRARY

The Building Research Centre was established in 1969 and is situated in a modern building on the main site of the Foundation of Scientific Research.

The library of the Centre contains 3,400 volumes on aspects of architecture and building. Most but not all material is ordered via the Scientific Documencation Centre. Collections of foreign standards are maintained and these are ordered through the Iraqi Standards Organization. One hundred and seven periodical titles are received including Engineering Index and Building Science Abstracts, but Architectural Periodicals Index was unknown as was its location in the Scientific Documentation Centre. No loans are made from the library but photocopies are obtained from the British Lending Library. The librarian has no assistance and is also responsible for the production and distribution of the research papers and bulletins of the Centre as well as for administrative arrangements in connection with the fortnightly lecture or film sessions. She has no scientific training but obtained the Higher Diploma in Library Science from the University of Baghdad and in 1976 was granted a three-month study fellowship in Great Britain by the United Nations Development Programme.

E. DATE AND PALM RESEARCH CENTRE LIBRARY

The Date and Palm Research Centre was established in 1968 and is concerned with the industrial, chemical, agricultural and byproduct aspects of dates and palm trees. There is a project to make the Centre a regional centre for neighbouring States but at present the research staff number only seven or eight.

The library of the Centre is the responsibility of the Director of the Centre and the librarian is a member of his staff. There are approximately 2,000 volumes in the library which have been purchased through the Scientific Documentation Centre. With the exception of a dictionary and a major scientific encyclopedia all the titles have been selected by the research staff of the Centre, and concern scientific and technical aspects of foodstuffs and related areas. A small collection of unbound periodicals is maintained including several abstracting and indexing services. Inter-library loans, mainly of periodicals, are requested from other libraries in the Foundation and some 300 requests per year are sent directly to the British Lending Library in Boston Spa, England, from where a very fast service is received. The Library is also responsible for distribution of the technical bulletins and occasional publications of the Centre.

F. INSTITUTE FOR APPLIED RESEARCH ON NATURAL RESOURCES LIBRARY

The Institute was founded in 1966 with assistance from the United Nations. It is concerned with research into various aspects of climate, soil, water and vegetation and has some 60 scientists.

It is claimed that the library of the Institute was the best agricultural library in Iraq until the move to the main Foundation site in 1974. The stock contains extensive bound sets of major journals and abstracting and indexing services including chemical abstracts. However most runs have gaps around 1972-1973 and binding of later issues has not been systematic.

The librarian received training at Munstansiriya University.

G. PETROLEUM RESEARCH INSTITUTE LIBRARY

The Petroleum Research Institute was founded in 1965 and occupies a modern building on the main site of the Foundation of Scientific Research.

The library of the Institute contains 1,670 volumes on subjects of interest to research work in the Institute all of which are ordered through the Scientific Documentation Centre. Selection of stock is by the research workers themselves. Two hundred periodical titles are received, among which are several important abstracting and indexing services. Within the Foundation, the library has the only current subscriptions to Science Citation Index, Current Contents, and Sections of Chemical Abstracts. No contact is maintained with the Library of the Iraq National Oil Company but photocopies are obtained from the British Lending Library, the American Petroleum Institute and the Institut Français du Pétrole.

1.4 Future development

Any discussion of the future development of the Scientific Documentation Centre must begin with the position in Iraq of the Foundation of Scientific Research. During the 13 years of its existence the Foundation has undergone a number of changes of affiliation and responsibility. At the time of writing (December 1976) the future of scientific research in Iraq and the part that the Foundation is to play in that future has not been made public. It is, however, expected that greater emphasis will be placed in future on science and technology and that research activities will be co-ordinated to a greater extent than before. While basic research and development activities in Iraq will no doubt receive appropriate emphasis it is logical to assume that technology transfer in a variety of ways will become increasingly important. The role of library, documentation and information science activities in technology transfer cannot be stressed enough since the major vehicle for the transmission of technology and ideas is the printed word in all its forms.

When the outcome of the present discussions on the future of science and technology is known it will be necessary to consider the need for a co-ordinated national system of library, documentation and information science activities in Iraq. The importance of a National Information System (NATIS) was confirmed at a major international conference, in which Iraq participated, convened by Unesco in September 1974. With appropriate planning the needs of scientific and technical development in Iraq for a wide range of library, documentation and information science services can be assessed and suitable organizations created or modified.

The Scientific Documentation Centre is the only centre in Iraq covering a broad spectrum of science and technology. Several other libraries, most notably those of the College of Science of the University of Baghdad, and the Atomic Research Centre, have responsibilities limited by user or by subject. Any development in the role of the Foundation of Scientific Research will tend to increase the proportion of Iraqi scientific and technical effort which is dependent upon the services of the Scientific Documentation Centre. However, unless the Foundation is given total and complete responsibility for all scientific and technical activities in Iraq there will remain users who fill feel unable to make use of the Centre. For this reason consideration should be given to two alterations in the position of the Centre.

The first of these is to make the Centre fully a national one with an appropriate range of responsibilities and functions. Authoritative sources in Iraq differ as to the present scope of the Centre's responsibilities with some asserting that it is to serve the Foundation only while others feel that it is empowered to be a

national centre. This uncertainty should be resolved as quickly as possible in favour of the national alternative. The second alteration follows from the first and is one about which it is less possible to be emphatic. The current arrangement whereby the responsibility for the Scientific Documentation Centre rests with the Foundation of Scientific Research tends at present to limit its use to a body which in 1974 was thought to be responsible for only 11.1% of research activities in Iraq.(1) If the proposed reorganization of the Foundation does not bring together the variety of research activities in Iraq into a co-ordinated system it may be necessary to consider whether the Scientific Documentation Centre should be transferred to some other body within the government. The new parent body would have to be one which was responsible for a considerable share of scientific work within Iraq and could thus provide access to a majority of users of the Centre's services.

Whatever the institutional affiliation of the Centre, a change of name will emphasize the broader responsibilities adopted. In 1972 the name IRAQDOC was used in connection with the Centre as an abbreviation for Iraqi Scientific Documentation Centre.(2) Despite its use in 1975(3) by the then Acting Director the name does not appear to have any legal standing. It is suggested that the name IRAQDOC be established as an abbreviation for IRAQ NATIONAL DOCUMENTATION CENTRE. This name would then be in line with other documentation centres e.g. TURDOK (Turkey), PANSDOC (Pakistan), INSDOC (India), and would make clear the national responsibilities of the Centre. It would not limit the areas of interest only to science and technology.

Policy

It is essential that the Scientific Documentation Centre establish a policy for its organization and services so that all involved in its work can be clear as to its activities.

The Scientific Documentation Centre should seek to acquire a considerable collection of literature itself and supplement its own collection with knowledge of and access to other collections in Iraq and abroad. Procedures and services should be developed to make literature available quickly and simply to those who have need of it and to bring to their attention items of use to them. As a further responsibility the Centre should collect and make available within Iraq and to the world of science the results of Iraqi research and development. These four responsibilities:

(a) access to world scientific literature;

(b) dissemination of world scientific literature;

(c) collection of Iraqi scientific literature;

(d) dissemination of Iraqi scientific literature;

should form the basis of future policy for the Centre.

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(1) PFETSCH, F.R., Iraq: Science, technology and development. Technical Report No. 1. Paris, Unesco, 1975. (FMR/SC/STP/75/245).

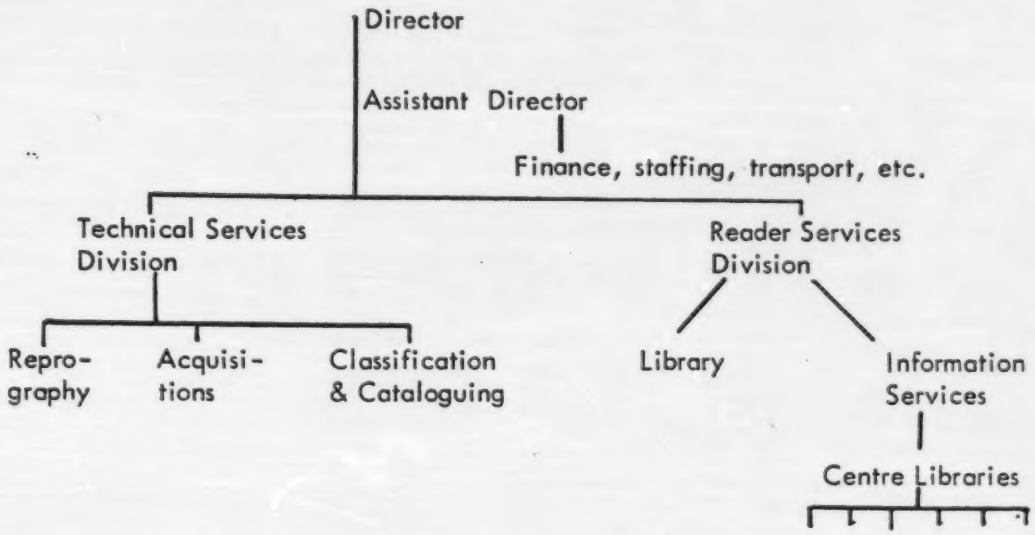
(2) HELAL, A.H., Iraq: Scientific Documentation Centre, February-April 1972. Paris, Unesco, 1972 (2736/RMO.RD/DBA).

(3) EL-SHARIFI, T.H., Iraqi Scientific Documentation Centre. Unesco Bulletin for Libraries. 29(1) Jan/Feb. 1975, 37-39.

Organizational structure and management

The new organization structure shown below provides a clear grouping of the Technical Service departments of Reprography, Acquisitions and Classification and Cataloguing and a similar grouping of the Reader Services departments comprising the Library and Information Services with the latter being responsible for relations with the libraries of the research centres. The Technical Services and the Reader Services Divisions will provide an opportunity for closer co-operation between departments than is at present the case. The two Divisions should be responsible to the Assistant Director who would be in charge of the administrative support services of the Centre (finance, staffing, transport, etc.) and to the Director who would have overall control and direction of all activities.

SCIENTIFIC DOCUMENTATION CENTRE: PROPOSED ORGANISATION STRUCTURE



Technical Services Division

The Division should be formed from the present Reprographic and Cataloguing and Classification Departments to which are added the acquisitions functions of the present Acquisitions Department. The Library which at present is part of the Acquisitions Department should become an independent department within the Reader Services Division.

Acquisitions

If the Foundation decides to create a major scientific and technical library for Iraq it will be vitally necessary to change the entire acquisitions process. The changes may be grouped into broad questions of policy and detailed questions of procedure.

The most urgent question is the need for a proper co-ordinated acquisitions policy. This policy must be based on the development plan for the Centre and must take into account the duties and responsibilities of the Centre and the research centres.

Each centre will need to select material of direct interest to its own research workers and those centres away from the main site will also need to have some background material available. The Scientific Documentation Centre will need to select a very wide range of material to support the general needs of the research centres as well as interdisciplinary and background material. The background material will include bibliographies, indexes and abstracts and a wide range of guides to the literature. The present situation where no full subscription to Chemical Abstracts is maintained and Building Science Abstracts is held at the Building Research Centre while Architectural Periodicals Index is held at the Scientific Documentation Centre can only hinder research work. A full range of periodicals should be acquired and the current list of titles must be enlarged. The book collection will need to contain a wide variety of manuals, data and handbooks as well as monographs dealing with specific subjects.

It is difficult to be certain about the size of the stock but between 2,500 and 3,000 periodical titles will be necessary to give adequate coverage of the world's scientific and technical literature. The bookstock will be less important for technology transfer purposes but should nevertheless contain at least 50,000 current items rising to 75,000 volumes within five years.

By concentrating foreign language acquisitions on one or two large suppliers with experience of problems of supply to the Arab States better service can be received than by using haphazard arrangements with small booksellers or directly with publishers.

The present periodicals check-in system is good and can be expanded to handle many more titles. The use of a periodicals agent can help to cut down much of the separate paperwork involved in ordering and paying for a large periodicals collection. Fast and reliable transport of periodicals from the Scientific Documentation Centre to the libraries of the research centres is important and the present arrangements should be improved.

Cataloguing and Classification

Quite rightly the Cataloguing and Classification Department has developed a comprehensive set of catalogues to the bookstock of the libraries of the Foundation. The union catalogue at the Scientific Documentation Centre is an excellent example of a centralized co-ordinating activity and should be continued and completed as quickly as possible. The systems of cataloguing, classification and subject indexing that have been adopted are good and well able to meet the needs of the users. The use of standard systems means that if the Documentation Centre moves to the main Foundation site and develops a large library it would be possible to bring together the existing bookstock to form the nucleus of the new library.

If the new library is to reach its suggested size of 50,000 volumes rapidly it will need to acquire roughly 8,000 volumes each year for five years. This is a 700% increase and will pose strains on the available staff of the Department.

The cataloguing and indexing of pamphlets is at present divided between two systems. It is desirable that pamphlets of lesser importannce are treated in the same way as those of first importance and classified and catalogued in the same way as books. The present system of indexing, although effective, has the result of dividing them from the main book and pamphlet stock and it is suspected that they will be overlooked by the user. Research reports are not at present included in the cataloguing and indexing system. As the quantity and usefulness of Iraqi research grows it will be necessary to provide access to the research reports. Although the book cataloguing and classification system can only provide broad subject access to a detailed research report it is important that they are not neglected by users of the catalogue. For this reason it appears sensible to include them in the activities of the Cataloguing and Classification Department.

Reprography

The professional documentation staff of the Centre need to have available a good, quick, simple and efficient photocopy machine so that users may be given copies of documents that they require. The present machine can provide good quality copies but suffers from the lack of adequate maintenance facilities in Iraq. As the work of the Centre expands, it will be necessary to replace the machine with other plain-paper machines for which adequate servicing facilities are available. If the proposal for a large Central Library is adopted at least one machine should be provided for users of the library in addition to another for the library staff. The microfilm facilities will be of two types. For provision both of cameras and processors for the production of microfilms and readers and printers for the use of microfilms the Centre has adequate equipment. The items not at present in full working order should be repaired or established properly by requesting the suppliers to return to Iraq. The Department already microfilms research reports produced within the Foundation and this work should be continued. Scientific periodicals and bulletins produced in Iraq are not being filmed at present and a programme to do this should be established in co-operation with the main research organization and the universities.

The administrative work of the Centre will require photocopying and duplicating facilities. The present stencil duplicating facilities in use are simple but expensive. A change to simple offset printing can produce better quality results and allow greater flexibility in the use of original material.

Reader Services Division

The Reader Services Division must become the equal partner to the Technical Services Division in providing the services of the Scientific Documentation Centre. Without Technical Services the work of Reader Services cannot operate and without Reader Services much of the work of Technical Services will be wasted.

The proposals below create a large library to provide basic stocks of literature and an amalgamation of the Bibliography and Abstracting Departments to produce a co-ordinated Information Services Department responsible for exploiting the stock on behalf of users. The Information Services Department would also be responsible for liaison and contact with the libraries of the individual research centres to ensure that a full service is available to all users within the Foundation.

Library

The Library will be at the centre of the work of the Scientific Documentation Centre in future. Without a strong library it will be impossible to offer a strong documentation and information service based on the transfer of technology via the published literature. At present the Library is part of the Acquisitions Department and contains a small stock. The Library should become an independent department as part of the Reader Services Division and should be headed by a qualified librarian.

The main medium for the transmission of scientific and technical information is the periodical and the needs of research in Iraq cannot be met by the present small and scattered collections in the libraries of the research centres and the Scientific Documentation Centre.

The collection should contain a good representation of abstracting, indexing and bibliographical tools to enable the stock to be exploited. At present the Library of the Scientific Documentation Centre contains almost no abstracting services and the collections of the research centres libraries are scattered and incomplete. Without an adequate selection of these guides to the scientific and technical literature the collections of books and above all periodicals will be wasted.

The new premises for the Library should be large enough to provide space for expansion for the next 20 years. The open access system of shelving which allows readers to browse among the stock is not common in Iraqi libraries but has great advantages in encouraging research workers to follow for themselves the many aspects of their work. If at all possible the system should be adopted in the new library of the Scientific Documentation Centre.

A properly established, housed, stocked and staffed library can become the focal point for many of the activities of the Scientific Documentation Centre and will provide a base from which the Information Service staff can operate.

Information Services

At present the Information Services activities of the Scientific Documentation Centre are divided between two departments - those of Bibliography and Abstracting. This split causes duplication and overlap in their activities and they should be combined into one new department called Information Services. This department will be responsible for all analysis and exploitation of the stock of the Centre on behalf of the research workers of the Foundation and elsewhere in Iraq.

Analysis of information includes indexing and abstracting the Iraqi scientific and technical literature. However care must be taken not to duplicate the work that is already being done by the great world abstracting and indexing services such as Chemical Abstracts, Bibliography of Agriculture, etc. These Services cover literature from all parts of the world and may already be including entries for articles in Iraqi periodicals. The "Scientific Abstracts" bulletin could be altered in scope and title and a change of title to "Iraqi Scientific Abstracts" would more clearly express its coverage and scope.

The exploitation activities of the Department should have the objective of increasing the extent to which scientists and research workers in Iraq use the literature to help them in their work. The range of activities is great and will reach from simple inquiry work using data books and directories to complex retrieval searches involving analysis of information from many sources. Members of the Information Services Department should staff the inquiry desks in the

Library and many requests will be made directly there by users. However, members of the Department must be encouraged to visit research workers in the centres in order to become familiar with their work and to discuss information problems with them.

It is of course essential that the information scientists and documentalists of the Department will be familiar with the wide variety of bibliographic and information tools that will enable literature search. These tools will range from simple bibliographies through indexing and abstracting services to the complex and sophisticated variety of citation indexes and other computer-produced publications. The Scientific Documentation Centre will have a large number of these tools in its own collection but in addition the staff of the Information Department must also become acquainted with the tools and the literature that is available in other libraries in Iraq.

Staff

One factor above all others affects the future development of the Scientific Documentation Centre. This factor is staff and in particular their quality and qualifications. There is no doubt that the quality of the service provided by the Scientific Documentation Centre is directly related to the quality of the staff available. This quality must be of two types: quality of professional knowledge and quality of management and leadership ability.

The Scientific Documentation Centre should aim to have all professional staff trained abroad within five years and may have to accept that while this is being done standards of service cannot be expected to rise. Staff in the Acquisitions, Cataloguing and Classification Departments and in the Library will need training in Librarianship while those in the Information Department and in the libraries of the research centres will need training in documentation or information science. The staff of the Reprographic Department should receive specialized training. All this training should be thorough and professional and should encourage the staff to develop the activities of the Centre. It should not be confined to narrow learning of technical skills.

Quality of management and leadership ability is more difficult to achieve for much of it comes from length of experience. Both the Division heads will need to create an efficient and affective co-ordinated division out of the present separated and variable units. The Director and Assistant Director must also have these qualities in addition to a clear understanding of the role that the Scientific Documentation Centre must play in scientific and technical life in Iraq.

Premises

The existing premises occupied by the Scientific Documentation Centre are small, inconvenient and unhelpfully situated in relation to the majority of users in the Foundation of Scientific Research.

It is important that any new building be practical and functional and that the design reflects the objectives of the Scientific Documentation Centre.

A number of fundamental principles should be adopted in the new building if it is to be a success. The first is that the greatest possible flexibility should be allowed for in the design of the building. The second principle should be that of open and free access by the users of the library to the stock. Scientific investigation seldom follows clearly set out paths and however good the catalogues and guides to the stock are the benefits of browsing in a collection of literature are very real. The danger of loss or damage to the stock may be greatly lessened by use of electronic security systems and by the availability of simple and effective photocopying facilities. In any event a building

constructed in accordance with the principles of flexibility and strength will allow a change from open to closed access to the stock or vice versa. The third principle should be to arrange the stock in broad groups bringing together books, periodicals and microforms on the same subject. The users will be interested in information on a subject and will not be concerned with the form in which it is published. A division of stock into a book collection, a periodicals collection, etc., will be less useful to the users than a division by subject into broad groups.

If properly sited the new building will tend to take the place of the small libraries in the existing research centres on the site and allow a concentration of stock and staff in a single powerful unit contributing to the effectiveness of the Foundation through large-scale information transfer. For this reason the planning and construction of a new building for the Scientific Documentation Centre should be given high priority by the Foundation.

Computers

It is suggested that the Scientific Documentation Centre continue the preliminary discussions that are taking place within the framework of the Arab League Educational, Scientific and Cultural Organization to develop a computerized information retrieval centre for the region. With the experience gained from that centre and appropriate long-term training of Iraqi information scientists it will be possible to assess the extent to which it is desirable and realistic to develop such services within the Scientific Documentation Centre. The computing facilities at present available within Iraq will not permit remote access by tele-processing to information stores and systems in other countries. It can be expected that such possibilities will be created in the future and that the Scientific Documentation Centre will be the logical national centre for such international links.

It will clearly be unwise for the Scientific Documentation Centre to consider the development of any computerized service which requires continuous on-line access to a computer until such facilities are available directly within the Foundation. However it is suggested that the Documentation Centre gain experience in the computerized handling of small quantities of data batch-processed off-line. An excellent opportunity exists in the preparations for a new edition of the Foundation's Union Catalogue of Periodicals which may be linked with a national union list. Discussions should take place immediately with those responsible for compiling the national union list to determine a specification for the list and for the subsidiary lists that could be produced. Once a satisfactory specification and format has been decided, discussions can take place with computer centres within Iraq to which the Foundation has access and if necessary with computer companies operating within the country. The preparation of a computerized national union list of periodicals together with a detailed catalogue for the Foundation will provide useful introductory experience for the Scientific Documentation Centre at the same time as resulting in a valuable bibliographic tool for libraries in Iraq.

External relations

The external interests of the Scientific Documentation Centre can be divided into two categories. Firstly those external sources of information that can be used to provide information for Iraqi research workers and secondly those methods by which the results of Iraqi scientific research can be made available to scientists throughout the world.

The major external source of information in the form of scientific periodicals and reports is the British Library Lending Division. The library has the largest collection of periodicals in the world and makes available photocopies of individual articles through a simple system of prepaid requests. The service is already used by several of the libraries of the research centres of the Foundation and a very fast service is received. As the information staff of the Scientific Documentation Centre develop their work they will use abstracting and indexing services to become aware of a wide range of periodical articles and will need to borrow those that are not held in the Library from the BLLD. A telex machine within the Documentation Centre would enable requests to be sent quickly to the BLLD and to many other libraries and documentation centres. The best sources of information about the Arab States will be the growing number of national documentation centres being established with the encouragement of ALECSO. It is important that good contacts are established and maintained with the centres and that the Scientific Documentation Centre as the Iraq national centre fully joins in co-operative efforts to establish a network for interchanging documents and photocopies. It can be expected that eventually the network will incorporate computerized information retrieval systems from a regional centre and that the contacts that have been established at first with efficient handling of simple written requests will develop and expand. Outside the Arab States other specialist sources of information exist and should be used as necessary.

The specialized agencies of the United Nations are important sources of information especially the Food and Agriculture Organization (FAO) in Rome and the United Nations Industrial Development Organization (UNIDO) in Vienna. During the last few years it has become necessary to co-ordinate and rationalize the various information and documentation services that exist and the United Nations Educational, Scientific and Cultural Organization (Unesco) has taken the lead in promoting the concept of international co-operation in this field with the UNISIST programme. The Scientific Documentation Centre has already been apointed the national focus for UNISIST activities in Iraq.

The methods by which Iraqi scientific work can be made known abroad are many. Efficient preparation and distribution of "Iraqi Scientific Abstracts" will be a major means of informing other scientists of work that has been completed. However the volume of literature now available in the world is so great that more and more abstracting and indexing services are turning to co-operative methods for the compilation of information. Two extremely successful co-operative systems are the International Nuclear Information System (INIS) operated by the International Atomic Energy Authority in Vienna and the Agricultural Information System (AGRIS) established by FAO in Rome. The Scientific Documentation Centre has already taken the first steps toward submitting material to the AGRIS system, and this work should be encouraged.

Other libraries within the Foundation of Scientific Research

At present three of the six libraries of the research centres of the Foundation are situated on the headquarters site. These libraries are within a few hundred metres of each other and much wasteful duplication and inefficiency is caused by the lack of co-ordination of their activities. As soon as the Scientific Documentation Centre can be established on the site the services that it will offer must be made far more efficient and attractive to research workers than those offered by the existing small libraries. It is therefore suggested that the present separate libraries be closed and their stocks used to supplement the collections of the Scientific Documentation Centre. In place of the libraries of each of the research centres a very small collection of handbooks and data manuals together with a few popular scientific periodicals can be maintained. These "documentation stations" can provide quick access to facts and figures and possibilities for relaxation during short breaks from research.

The extensive facilities of the Scientific Documentation Centre will be used for all other information needs. Any research centres not on the main site will require a full library and information service. Each separate library should be properly housed in a separate room sufficiently large to allow storage and display of the necessary stock and space for staff and readers. Each library should be in the charge of a qualified librarian who should not have other clerical or administrative functions. In the larger libraries some permanent clerical assistance will be required. All librarians should be encouraged to maintain close contact with the Scientific Documentation Centre and at least three times a year should participate with all the other library and documentation staff in a "co-ordination and training day" in addition to regular meetings with the staff of the Documentation Centre to discuss particular aspects of the service.

A prompt and efficient transport system to each site must be maintained.

1.5 Summary of main recommendations concerning documentation services

1. A national system of library, documentation and information science activities should be created in Iraq.

2. The Scientific Documentation Centre should be renamed the IRAQ NATIONAL DOCUMENTATION CENTRE and should be confirmed as the national centre for information transfer serving all research workers in Iraq.

3. The Scientific Documentation Centre should establish a clear policy for its organization and activities.

4. The basis of the activities of the Centre should be the collection and dissemination of the scientific literature of the world and of Iraq.

5. The activities of the Centre should be grouped into two main divisions - for Technical Services and for Reader Services.

6. The Technical Services Division should consist of the Acquisitions, Reprography and Cataloguing Departments.

7. The Reader Services Division should consist of the Library and Bibliography and Abstracting Departments.

8. The Acquisitions Department may need to change to a simpler system to handle large numbers of orders.

9. The Cataloguing Department must consider the use of cataloguing data obtained from other sources.

10. The Reprography Department should arrange to have its equipment put in working order and should establish a co-operative microfilming programme with other libraries in Iraq.

11. The Library should grow rapidly to at least 50,000 current books and between 2,500 and 3,000 periodical titles and should become the major information source within the Foundation.

12. The Information Department should be responsible for analyzing and exporting literature on behalf of users.

13. If the Scientific Documentation Centre is moved to the main Foundation site the libraries of the Research Centres on that site should be reduced to quick reference information points.

14. The greatest possible emphasis should be given to professional training abroad for the staff of the Centre.

15. Strong professional leadership and management are essential for the Centre.

16. A new purpose-designed building on the main Foundation site is urgently required for the Centre.

17. The Centre should not consider using computers for its operations except in a co-operative trial programme for periodical lists with other libraries in Iraq.

18. The Scientific Documentation Centre should develop strong links with external sources of information such as the British Library Lending Division and other national documentation centres.

19. The Scientific Documentation Centre should participate fully in international co-operative activities in information transfer such as AGRIS and should develop its role as the national UNISIST centre for Iraq.

2. MINISTRY OF PLANNING LIBRARY

The Ministry of Planning is responsible, through the Planning Council, for all aspects of development planning in Iraq. It occupies a powerful position in the Government hierarchy and has a large and modern headquarters in Baghdad.

The library of the Ministry collects material on all aspects of planning and development and also houses an extensive collection of official statistics from Iraq and abroad. The latter are received in exchange by the Central Statistical Organization which forms part of the Ministry of Planning. Some United Nations material is received free and more items are purchased. The stock consists of some 5,500 books some of which are in multiple copies and the majority of which are in English. Ninety English-language journals and 30 Arabic-language ones are received by subscription or gift. Both books and journals are purchased through Blackwells in Oxford from whom a good service is received. A collection of reports of planning projects by foreign organizations is maintained and a microfiche collection of foreign development reports has been purchased recently. Many of these planning and development reports are not held in any other library in Iraq.

The premises of the library are modern and well equipped and provide space for some eight readers. A microfilm reader/printer is available in addition to the extensive microfilming facilities maintained elsewhere within the Ministry. The stock is classified by Dewey and dictionary catalogues for both Arabic and English-language material are provided. The staff of the Library is six, of whom several have received training at Munstansiriya University. The Chief Librarian received training at the Central Library of the University of Baghdad and visited the United Kingdom for several months in 1974 on a study tour based largely at the Ministry of Overseas Development.

3. SPECIALIZED INSTITUTE FOR ENGINEERING INDUSTRIES

The Specialized Institute for Engineering Industries was established by Law 128 of 1972 with a Board of Directors reporting directly to the Minister of Industry. Late in 1976 it was subordinated to the State Organization for Industries, a part of the Ministry of Industry. The Institute is one of a series of nine covering areas of industry and development which are being established in eight Arab States by the Industrial Development Centre for the Arab States with assistance from the United Nations Industrial Development Organization (UNIDO). The objectives of the Institutes include Documentation and Information Services among their responsibilities. The Institute began operating in August 1973 and in March 1974 a documentation expert provided by UNIDO began a three-month mission to plan and develop the library, documentation and information services of the Institute. The proposals resulting from that mission suggest that the documentation activities of the Institute will act as a service centre in the provision of engineering information for the Arab States. It will collect, store, organize, retrieve and disseminate engineering information through a variety of services.

A library has been established containing over a 1,000 volumes on Engineering and new accession amount to nearly 300 per year. The emphasis is on practical manuals and data books rather than on theoretical studies. Items are classified by UDC and are loaned to requesters. A collection of Iraq, United Kingdom, ASTM and West German Standards in engineering is maintained and a number of journals are received.

An information service is provided with three engineer/documentalists and the UNIDO expert who returned in 1975 for a longer mission. Over 200 inquiries from several Arab States had been answered by 1975. The Institute's own library is used as a basic information service supplemented by information from UNIDO headquarters in Vienna. Photocopies are requested from the British Lending Library. A ten-year file of Engineering Index has been established and plans are made to acquire a file of British Technology Index. A monthly bulletin of engineering information has been published since June 1974 containing: articles on engineering information, notes on new developments in engineering, abstracts of significant new articles, a list of accessions to the library, information on forthcoming conferences and seminars, notes on important engineering reference sources and on new trade literature received. A readers inquiry card is included in each issue. The Institute has its own photocopying equipment and reprographic facilities.

Inquiries are received direct from faculty members in Colleges of Engineering and no arrangement exists for relationships with the University Libraries in Iraq or elsewhere. Training courses in engineering information that have been conducted have not necessarily included librarians as participants.

Early in the development of the documentation service an informal understanding over subject areas of responsibility was reached with the then Acting Director of the Scientific Documentation Centre but no formal means exists for maintaining contact.

4. CONCLUSION

Iraq already possesses a number of documentation and information centres, for example those of the Foundation of Scientific Research, the Iraq National Oil Company and other research organizations. These centres are totally uncoordinated and the result is wasteful duplication and gaps in services and stocks. The Scientific Documentation Centre should become the National Documentation

Centre and act as a national co-ordinating body in this area. The Documentation Services Working Group of the National Commission on Library and Documentation Services which is proposed elsewhere in this report should become the means by which a national information and documentation system is established. The Scientific Documentation Centre should provide leadership to the Working Group. Without this Working Group documentation services in Iraq will increasingly be unable to meet the information demanded by the progress of development.